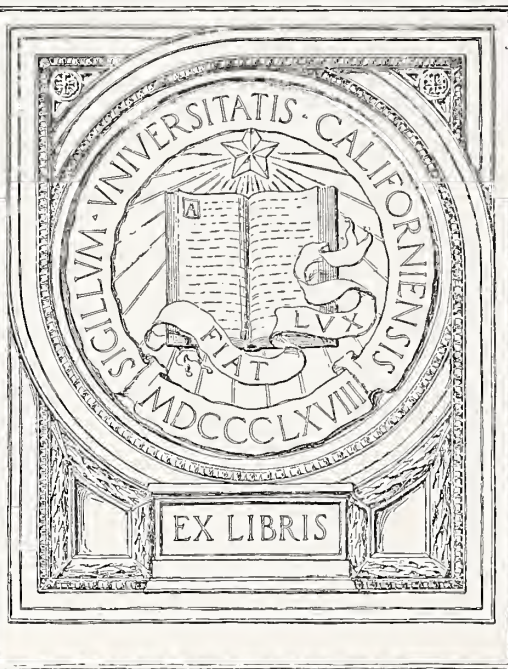


UC-NRLF



C 3 257 435

UNIVERSITY OF CALIFORNIA
MEDICAL CENTER LIBRARY
SAN FRANCISCO





Digitized by the Internet Archive
in 2016

<https://archive.org/details/arizonamedicinej191unse>

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE



UNITED STATES AND MEXICO

Volume 19

Number 1

January, 1962

U.C. MEDICAL CENTER LIBRARY

JAN 23 1962

San Francisco, 22

a look
at the
literature



“ an excellent drug
Based both
on laboratory studies and clinical
impressions, it [Cordran] appears to
be an excellent drug for the relief of
cutaneous inflammation, possibly
more effective than any steroid we
have hitherto used. ”

—Rostenberg, A., Jr.: Clinical Evaluation of
Flurandrenolone, a New Steroid, in Der-
matological Practice, J. New Drugs, 1: 118,
1961.

Description: Cordran cream and ointment
contain 0.5 mg. Cordran per Gm. Cordran™-N
cream and ointment contain 0.5 mg. Cordran
and 5 mg. neomycin sulfate per Gm.

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)

Product brochure available; write Eli Lilly and Company, Indianapolis 6, Indiana.
This is a reminder advertisement. For adequate information for use, please consult
manufacturer's literature.

Lilly

240209

169372

when urinary
tract
infections
present
a therapeutic
challenge...

CHLOROMYCETIN[®]

(chloramphenicol, Parke-Davis)

Often recurrent... often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.^{1,2} In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain *Proteus* species, the micrococci and the enterococci."¹ CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.³ In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.⁴⁻⁶

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals[®] of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. **Precautions:** It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Malone, F. J., Jr.: *Mil. Med.* 125:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* 34:187, 1959. (3) Ullman, A.: *Delaware M. J.* 32:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* 108:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* 10: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* 11:392, 1960.

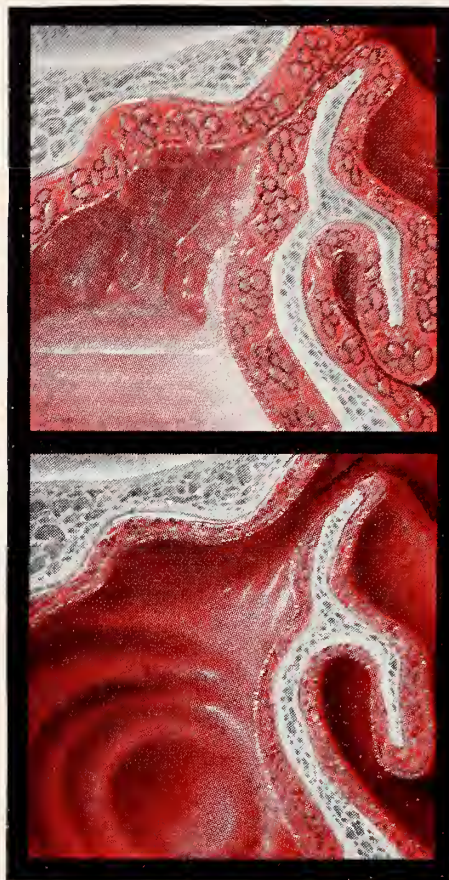
PARKE-DAVIS

68961

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



In colds
and
sinusitis
unsurpassed
in providing
drainage
space
without
chemical
harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE[®]

brand of phenylephrine hydrochloride hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turbescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.¹⁻³ Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, *Clin. Med. & Surg.* 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): *Current Therapy* 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, *Journal-Lancet* 79:535, Dec., 1959.

Winthrop

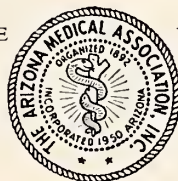
LABORATORIES
New York 18, N. Y.

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

January, 1962



Vol. 19, No. 1

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

HOUSE OF DELEGATES — RESUME — MEETING APRIL 28, 1961	13A
PROFESSIONAL COMMITTEE MEETING — MINUTES — OCTOBER 29, 1961....	18A

ORIGINAL ARTICLES

THE TREATMNT OF ADVANCED METASTATIC TUMORS	1
Jeanne C. Bateman, M.D.	
ARTERIAL HYPERTENSION	8
James E. Reeves, M.D.	
MAINTENANCE OF THE CARDIOVASCULAR SYSTEM IN THE AGED	12
Arthur Grollman, M.D., Ph.D.	
THE RETURN OF THE WAPITI TO ARIZONA	14
John W. Kennedy, M.D.	

PRESIDENT'S PAGE

A MILESTONE — Leslie B. Smith, M.D.	37A
--	-----

EDITORIALS

LABORATORY COST — CLINICAL JUDGMENT — Clarence L. Robbins, M.D.	41A
PHONE-CALL COERCION — Clyde W. Kurtz, M.D.	42A
DRUG SAMPLES — William B. McGrath, M.D.	42A
EDITORS NOTES — Darwin W. Neubauer, M.D.	42A
LETTERS TO THE EDITOR — Leslie B. Smith, M.D.	46A
Robert F. Lorenzen, M.D.	46A

TOPICS OF CURRENT MEDICAL INTEREST

IS THIS THE END OF THE LINE? — George M. Fister, M.D.	57A
FINANCIAL CHECK-UP	60A
ARIZONA POISONING CONTROL INFORMATION CENTER	
JUVENILE "GLUE SNIFFERS"	60A
BLUE SHIELD	62A
LIVES TO BE SAVED — MacDonald Wood, M.D.	62A
LOCATION OPPORTUNITIES	64A

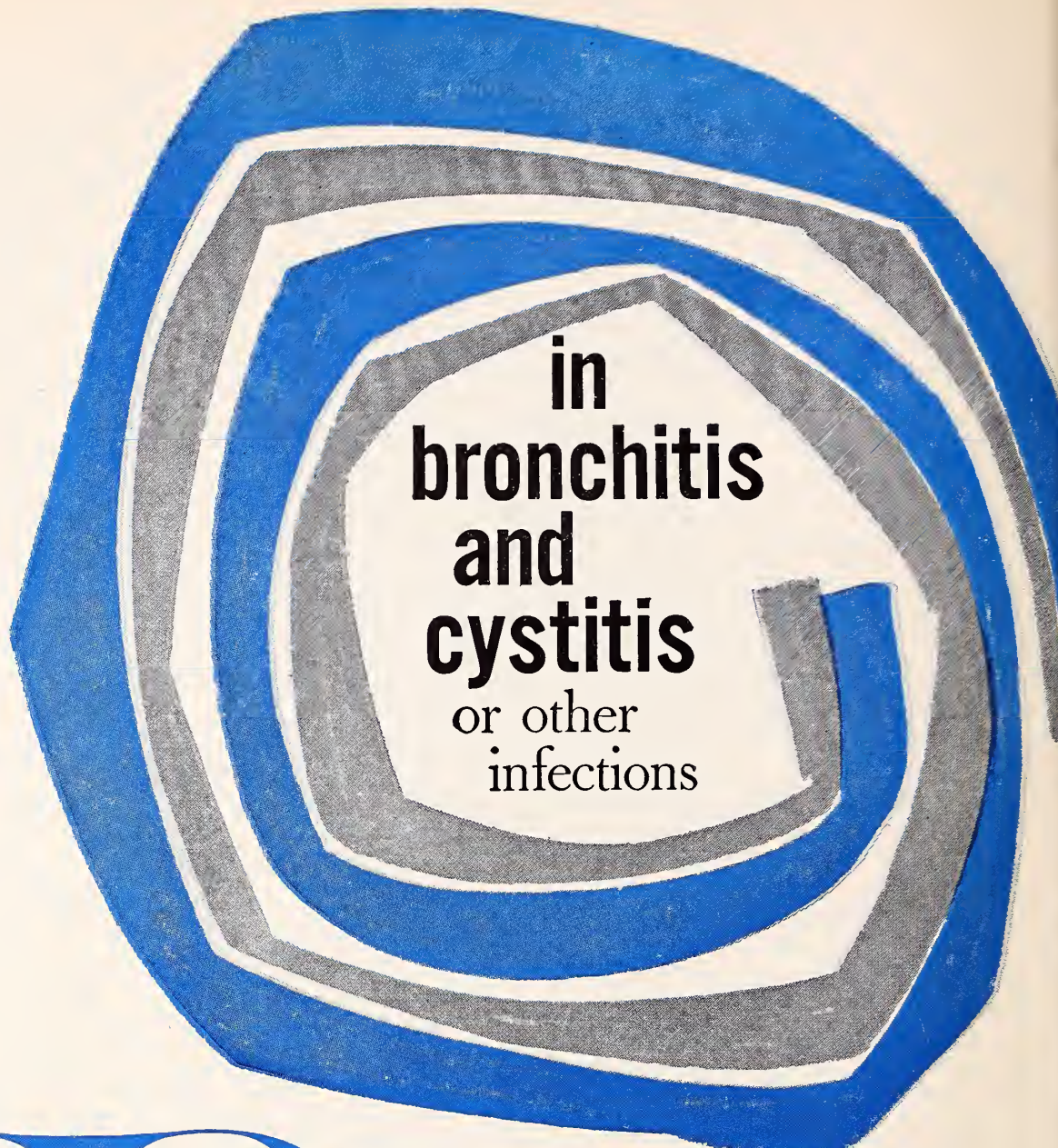
FUTURE MEDICAL MEETINGS AND POSTGRADUATE EDUCATION

FIFTH ANNUAL CARDIAC SYMPOSIUM	69A
ARMA — 71ST ANNUAL MEETING TENTATIVE PROGRAM	70A
WOMAN'S AUXILIARY — 32ND ANNUAL MEETING TENTATIVE PROGRAM ...	71A
PSYCHIATRY IN THE PRACTICE OF MEDICINE	71A
REGIONAL MEETINGS — WINTER AND SPRING — 1961-1962	72A

DIRECTORY

OFFICERS AND COMMITTEES	6A
SOCIEDAD MEDICA D ESTADOS UNIDOS DE NORTE AMERICA Y MEXICO....	7A
MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO	7A
WOMAN'S AUXILIARY	7A
INDEX TO ADVERTISERS	84A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription \$5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.



in
bronchitis
and
cystitis
or other
infections

D antibiotic therapy with DECLOMYCIN

CAPSULES, 150 mg., 75 mg. *Dosage:* Average infections—150 mg. four times daily. Severe infections—Initial dose of 300 mg., then 150 mg. every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. *Dosage:* 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into four doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored). *Dosage:* 3 to 6 mg. per pound body weight per day—divided into four doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics, and demands that the patient be kept under constant observation.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York 

n added measure of protection

MYCIN[®]
DEMETHYLCHLORTETRACYCLINE LEDERLE

against relapse— up to 6 days' activity on 4 days' dosage

against secondary infection— sustained high activity levels

against "problem" pathogens— positive broad-spectrum antibiosis

Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.
Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Leslie B. Smith, M.D. President
1130 E. McDowell Rd., Phoenix, Arizona
Clarence E. Yount, Jr., M.D. President-elect
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D. Vice President
116 N. Tucson Blvd., Tucson, Arizona
Paul L. Singer, M.D. Secretary
1313 N. Second Street, Phoenix, Arizona
Arthur V. Dudley, Jr., M.D. Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D. Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D. Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D. Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Orin J. Farness, M.D. Alternate Delegate to AMA
1535 N. Tucson Blvd., Tucson, Arizona
Dermont W. Melick, M.D. Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D. Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D. Central District
710 Professional Bldg., Phoenix, Arizona
W. Albert Brewer, M.D. Central District
1116 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D. Central District
926 E. McDowell Rd., Phoenix, Arizona
Wallace A. Reed, M.D. Central District
2021 N. Central Ave., Phoenix, Arizona
Noel G. Smith, M.D. Central District
3614 N. 15th Ave., Phoenix, Arizona
Leo L. Tuveson, M.D. Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D. Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D. Northwestern District
434 West Gurley Street, Prescott, Arizona
D. G. Moody, M.D. Southeastern District
101 Terrace Street, Nogales, Arizona
Earl R. Baldwin, M.D. Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D. Southern District
1613 N. Tucson Blvd., Tucson, Arizona
John R. Schwartzmann, M.D. Southern District
2415 E. Adams Street, Tucson, Arizona
James T. O'Neil, M.D. Southwestern District
113 West 2nd Street, Casa Grande, Arizona

DIRECTOR AT LARGE

Lindsay E. Beaton, M.D. Past President
1650 N. Campbell Ave., Tucson, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1961

APACHE: Jerry T. Clifton, M.D., President, Box 758, Show Low, Arizona; Arnold H. Dysterheft, M.D., Secretary, McNary Hospital, McNary, Arizona.
COCHISE: Benjamin G. Rothman, M.D., President, P. O. Box 1192, Bisbee, Arizona; William W. McKinley, Jr., M.D., Secretary, P. O. Box 1192, Bisbee, Arizona.
COCONINO: James B. Wenzel, M.D., President, 1303 North Beaver St., Flagstaff, Arizona; John R. Caskey, M.D., Secretary, 2725 E. Lakin Drive, Flagstaff, Arizona.
GILA: Bert E. Lambrecht, M.D., President, Box 1837, Miami, Arizona; Bernard J. Collopy, M.D., Secretary, Box 342, Miami, Arizona.
GRAHAM: Frederick W. Knight, M.D., President, 618 Central Avenue, Safford, Arizona; Bruce N. Curtis, M.D., Secretary, 618 Central Avenue, Safford, Arizona.
GREENLEE: Charles B. Daniell, M.D., President, Morenci Hospital, Morenci, Arizona; Leopoldo Dulawa, M.D., Secretary, Morenci, Hospital, Morenci, Arizona.
MARICOPA: Robert A. Price, M.D., President, 3602 N. 15th Avenue, Phoenix, Arizona; Howard C. Lawrence, M.D., Secretary, 2021 North Central Avenue, Phoenix, Arizona. Society Office: 2025 North Central Ave., Phoenix, Arizona.
MOHAVE: Walter Brazie, M.D., President, Masonic Building, Kingman, Arizona; John J. Standifer, M.D., Secretary, 412 East Oak Street, Kingman, Arizona.
NAVAJO: Harry S. Beckwith, M.D., President, 101 S. Williamson Street, Winslow, Arizona; Donald F. DeMarse, M.D., Secretary, Box 397, Holbrook, Arizona.
PIMA: D. J. Heim, M.D., President, 116 North Tucson Boulevard, Tucson, Arizona; Elliott E. Stearns, Jr., M.D., Secretary, 2442 East Elm Street, Tucson, Arizona.
PINAL: James B. Tucker, M.D., President, 703 N. Olive Street, Casa Branda, Arizona; James H. Boyd, M.D., Secretary, 291 West Wilson Avenue, Coolidge, Arizona.
SANTA CRUZ: Delmer R. Mock, M.D., President, 309 Duquesne Avenue, Patagonia, Arizona; Charles S. Smith, M.D., Secretary, Gebler Building, Nogales, Arizona.
YAVAPAI: Richard G. Hardenbrook, M.D., President, 316 Grove Avenue, Prescott, Arizona; William R. Shepard, M.D., Secretary, 506 West Gurley Street, Prescott, Arizona.
YUMA: William J. Nelson, M.D., President, 450 West 23rd Street, Yuma, Arizona; Abe I. Podolsky, M.D., Secretary, 1601 Fifth Avenue, Yuma, Arizona.

COMMITTEES - 1961-62

NOTE: The President, President-elect and Secretary are ex-officio members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE: Paul B. Jarrett, M.D., Chairman (Phoenix); Walter Brazie, M.D. (Kingman); Frank A. Shellenberger, Jr., M.D. (Tucson); Paul M. Singer, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Donald K. Buffmire, M.D., Chairman (Phoenix); Preston T. Brown, M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Carl H. Gans, M.D. (Morenci); Roland V. Murphy, M.D. (Tucson); Paul L. Singer, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Arthur V. Dudley, Jr., M.D., Chairman (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson).

EXECUTIVE COMMITTEE: Leslie B. Smith, M.D., President, Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Lindsay E. Beaton, M.D., Past-President, Chairman (Tucson); Carlos C. Craig, M.D. (Phoenix); Francis M. Findlay, M.D. (San Manuel); John F. Stanley, M.D. (Yuma); Oscar W. Thoeny, M.D. (Phoenix); Hugh C. Thompson, Jr., M.D. (Tucson); Florence B. Yount, M.D. (Prescott).

HISTORY & OBITUARIES COMMITTEE: John W. Kennedy, M.D., Chairman (Phoenix); Harold W. Kohl, M.D., (Tucson); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podolsky, M.D. (Yuma); Howell S. Randolph, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: John H. Ricker, M.D., Chairman (Phoenix); John F. Currin, M.D. (Flagstaff); Juan E. Fonseca, M.D. (Tucson); Oscar W. Friske, M.D. (Ajo); Charles P. Neumann, M.D. (Tucson); Robert W. Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Co-Chairman (Phoenix); MacDonald Wood, M.D., Co-Chairman (Phoenix); Derrick B. Manley, M.D. (Phoenix); John S. Carlson, M.D. (Nogales); Ben P. Frissell, M.D. (Phoenix); Paul B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); William B. Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D., Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix); Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: W. Albert Brewer, M.D., Chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: Wallace A. Reed, M.D., Chairman (Phoenix); Jack E. Brooks, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson); Maurice Rosenthal, M.D. (Phoenix); George A. Spikes, M.D. (Douglas).

PROCUREMENT & ASSIGNMENT COMMITTEE: Joseph M. Greer, M.D., Chairman (Phoenix); Robert N. Class, M.D. (Tucson); John F. Currin, M.D. (Flagstaff); Ruland W. Husong, M.D. (Phoenix); Robert M. Matts, M.D. (Yuma); Joseph P. McNally, M.D. (Prescott).

PROFESSIONAL COMMITTEE: Robert B. Leonard, M.D., Chairman (Phoenix); James D. Alway, M.D. (Phoenix); Otto L. Bendheim, M.D. (Phoenix); W. Albert Brewer, M.D. (Phoenix); Orin J. Farness, M.D. (Tucson); Ray Fife, M.D. (Phoenix); Richard B. Johns, M.D. (Phoenix); Howard W. Kimball, M.D. (Phoenix); Henry P. Limbacher, M.D. (Tucson); George G. McKhann, M.D. (Phoenix); Herman S. Rhu, M.D. (Tucson); Paul J. Slosser, M.D. (Yuma); Charles A. L. Stephens, M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Ben B. Frissell, M.D., Chairman (Phoenix); Ernest A. Born, M.D. (Prescott); Clyde W. Kurtz, M.D. (Phoenix); William G. Payne, M.D. (Tempe); Harold J. Rowe, M.D. (Tucson); Delbert L. Secrist, M.D. (Tucson); Hugh M. Smith, M.D. (Tucson); Noel G. Smith, M.D. (Phoenix); Albert G. Wagner, M.D. (Phoenix); Roy O. Young, M.D. (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roland F. Schoen, M.D., Chairman (Casa Grande); Robert H. Bullington, M.D. (Phoenix); Howard W. Finke, M.D. (Superior); Charles H. Finney, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Ralph T. Irwin, M.D. (Yuma); Paul B. Jarrett, M.D. (Phoenix); John F. Kahle, M.D. (Flagstaff); J. Edwin Keppel, M.D. (Mesa); Clarence H. Kuhlman, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Clarence L. Robbins, M.D. (Tucson); Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Editor-in-Chief, Chairman (Tucson); R. Lee Foster, M.D. (Phoenix); John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Richard O. Flynn, M.D., Co-Chairman (Tempe); Clarence E. Yount, Jr., M.D., Co-Chairman (Prescott); James E. Brady, Jr., M.D. (Tucson); Richard E. H. Duisberg, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Richard B. Johns, M.D. (Phoenix); Fred H. Landeen, M.D. (Tucson); William H. Lyle, M.D. (Yuma); Arthur R. Nelson, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Edward Sattenspiel, M.D. (Phoenix); Roland F. Schoen, M.D. (Casa Grande); John R. Schwartzmann, M.D. (Tucson); William B. Steen, M.D. (Tucson).

**WOMAN'S AUXILIARY TO THE ARIZONA MEDICAL
ASSOCIATION — 1961-62 Board Members**

PresidentMrs. Ian M. Chesser (Lu)
414 N. Country Club Road, Tucson, Arizona

President-ElectMrs. Frederick W. Knight (Mary)
618 Central Avenue, Safford, Arizona

1st Vice PresidentMrs. Clare W. Johnson (Mary Ann)
(Organization and Membership Chairman)
318 West Lawrence Road, Phoenix 13, Arizona

2nd Vice PresidentMrs. John Kahle (Rosemary)
(Program Chairman)
2412 N. Talkington, Flagstaff, Arizona

TreasurerMrs. Herbert D. Welsh (Lynn)
Route 8, Box 18, Tucson, Arizona

Recording SecretaryMrs. Robert G. Delph (Grace)
4 West 'D' Avenue, Glendale, Arizona

Corresponding Secretary ..Mrs. Bernard W. Simons, Jr. (Marjorie)
3423 East 4th St., Tucson, Arizona

Director (1 year)Mrs. Robert H. Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona

Director (1 year)Mrs. Robert Keller (Maren)
1229 Fifth Avenue, Safford, Arizona

Director (2 years)Mrs. William D. Nelson, Jr. (Ellen)
2808 Vista Lane, Yuma, Arizona

STATE COMMITTEE CHAIRMEN — 1961-62

American Medical Education FundMrs. Max Costin (Kay)
2648 E. Fourth Street, Tucson, Arizona

BulletinMrs. B. E. Lambrecht (Lila)
Box 1837, Miami, Arizona

By-LawsMrs. Jesse D. Hamer (Clarice)
1819 North 11th Avenue, Phoenix 7, Arizona

ChaplainMrs. W. Stanley Kitt (Abbie)
2043 E. Fourth Street, Tucson, Arizona

Community ServiceMrs. Thomas Rowley (Barbara)
114 South Miller Street, Mesa, Arizona

ConventionMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

Civil DefenseMrs. Paul Jarrett (Beverly)
501 East Pasadena, Phoenix 12, Arizona

FinanceMrs. Seymour I. Shapiro (Arline)
5433 E. 8th Street, Tucson, Arizona

Health CareersMrs. Earl R. Baldwin (Betty)
3320 North Martin Avenue, Tucson, Arizona

HistorianMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

LegislationMrs. Shaw McDaniel (Eleanor)
114 East Tuckey Lane, Phoenix 12, Arizona

Mental HealthMrs. John T. Clymer (Eloise)
201 West Flynn Lane, Phoenix 13, Arizona

NominatingMrs. Robert Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona

ParliamentarianMrs. John Eisenbeiss (Lucile)
99 West Northview, Phoenix 21, Arizona

Publications (Newsletter)Mrs. Hubert R. Estes (Mickie)
6911 Soyuluna Place, Tucson, Arizona

SafetyMrs. C. Selby Mills (Vivian)
1844 E. Keim Drive, Phoenix 16, Arizona

Student Nurse Loan Fund.....Mrs. Juan Fonseca (Virginia)
2505 Indian Ridge Drive, Tucson, Arizona

Workshop AdvisorMrs. Hiram D. Cochran (Mary)
35 Camino Espanol, Tucson, Arizona

COUNTY PRESIDENTS — 1961-62

Coconino CountyMrs. James Wenzel (Nancy)
2143 N. Navajo Drive, Flagstaff, Arizona

Gila CountyMrs. Charles Bejarano
1048 Adonis Avenue, Miami, Arizona

Maricopa CountyMrs. Richard B. Johns (Ruth)
508 W. Rose Lane, Phoenix 13, Arizona

Pima CountyMrs. Frederick J. Hirsch (June)
5817 E. Fourth Street, Tucson, Arizona

Yavapai CountyMrs. Donald Merkle (Helena)
810 Norris Road, Prescott, Arizona

Yuma CountyMrs. Ellis Browning (Olive)
2200 16th Place, Yuma, Arizona

**SOCIEDAD MEDICA DE ESTADOS UNIDAS DE
NORTEAMERICA Y MEXICO**

MEDICAL SOCIETY OF THE UNITED STATES & MEXICO

PresidentDr. Ignacio Chavez
Edificio Profesional, Pavo No. 112, Guadalajara, Jalisco, Mex.

President-ElectDr. Juan E. Fonseca
2409 E. Adams, Tucson, Arizona

Vice-PresidentDr. E. Contreras Reyna
Marsella 125 Norte, Guadalajara, Jalisco, Mexico

SecretarioDr. Fausto Zeron Medina
Guadalajara, Jalisco, Mexico

SecretaryDr. M. A. Carreras
130 South Scott, Tucson, Arizona

Executive SecretaryByron Browder
Tucson, Arizona

Secretario EjecutivoAlfredo E. Patron
Mazatlan, Sinoloa, Mexico

TreasurerDr. Robert E. Hastings
1014 N. Country Club, Tucson, Arizona

TesoreroDr. E. Gonzalez Murguia
Juarez 673, Guadalajara, Jalisco, Mexico

**COORDINATING COMMITTEE
COMITE COORDINATOR**

Dr. Harry E. Thompson

Dr. Hector Gonzalez Guevara

Dr. Ignacio Chavez

Dr. W. R. Manning



NaClex[®] benzthiazide[®]

in edema
and hypertension
achieves 82% of
its diuretic effect
in six hours¹

NaClex works fast. Does its work quickly, thoroughly, safely—then lets your patient rest. Completes 82% of its excess fluid loss within 6 hours, over 96% within 12 hours¹ . . . an unsurpassed potency. Useful also in long or short-term treatment of congestive heart failure, obesity, pre-menstrual tension; 50 mg. tablets.

1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," *Cur. Ther. Research*, 2:51, 1960.

For more information, ask your Robins representative or write:

A. H. Robins Company, Inc.
Richmond 20, Virginia



Available in Canada under the
trade name Ectoz



Even if you prescribed a year's supply



the last
Optilets
Filmtab[®]
would still be good

Actually, doctor, labeled potency will last a much longer time. While we would never recommend by-the-year dosage of a therapeutic nutritional, this does illustrate the unusual stability of Optilets.

The reason, of course, is Filmtab coating. Unlike previous sugar coatings, no water is needed for application. This virtually eliminates chances of moisture degradation.

Greater stability, however, is just one of Optilets advantages. Without sugar's bulk, we can make tablets up to 30% smaller in size. Coatings are less brittle, and tablets less apt to chip or break. As Filmtab coatings are no more than paper-thin, nutrients are more readily available. Yet, patients are protected from vitamin odors and after-tastes.

While stability is important and easy administration an advantage, ingredients are, of course, the main criteria for any nutritional. Please check the Optilets formulas, doctor. We think you'll find them a good choice for your patients.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

Optilets

Each Filmtab represents:

Vitamin A	7.5 mg. (25,000 units)
Vitamin D	25 mcg. (1000 units)
Thiamine Hydrochloride	10 mg.
Riboflavin	5 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B ₁₂)	6 mcg.
Calcium Pantothenate	20 mg.
Ascorbic Acid	200 mg.

Optilets-M[®]

Each Filmtab represents all the vitamins of Optilets plus the following:

Iron (as sulfate)	10 mg.
Copper (as sulfate)	1 mg.
Iodine (as calcium iodate)	0.15 mg.
Cobalt (as sulfate)	0.1 mg.
Manganese (as sulfate)	1 mg.
Magnesium (as oxide)	5 mg.
Zinc (as sulfate)	1.5 mg.
Molybdenum (as sodium molybdate)	0.2 mg.



Her position on nutrition
Is taught in all the schools.
She's an oracle for others,
Yet, the first to break the rules.
While a mine of diet knowledge
(And, each lecture is a gem)
Poor Ramona from Pomona needs
some **DAYALETs with M.**

Average Serving	Calorie Count
cherbet (1/2 cup)	118
vanilla pudding (1 cup)	275
Fruits	
apple, raw (medium-size)	76
banana, raw (medium-size)	88
cantaloupe (1/2)	37
grapefruit (1/2 small)	40
orange, raw (medium-size)	70
peach, raw (medium-size)	46
pear, raw (medium-size)	95
pineapple, canned (1 large slice)	95
Fruit Juices	
grapefruit, fresh (1 cup)	87
orange, fresh (1 cup)	108
pineapple, canned (1 cup)	121
tomato, canned (1 cup)	60
Meat, Fish and Poultry	
beef, sirloin steak (3oz)	257
lamb chop (3oz)	366
pork chop (3oz)	284
hast (3oz)	339

Likes, dislikes, and time schedules never interfere with her lectures,
doctor, just her diet. She could live in a grocery store and still eat poorly. While
Dayalets-M can't replace self-discipline, it can help insure optimal nutrition.
Tablets are tiny, potent, and Filmtab-coated. Patients like taking them.

Filmtab® DAYALETs-M®...essential vitamins plus 8
minerals in the most compact tablet of its kind



TOO WELL To Stay in The Hospital . . . TOO SICK To Go Home . . .

If your **PATIENT** is in this category, the **WHITE ANGEL INN**
is the answer to your problem of convalescent care.

A New Concept In Convalescent Care . .

WHITE ANGEL INN

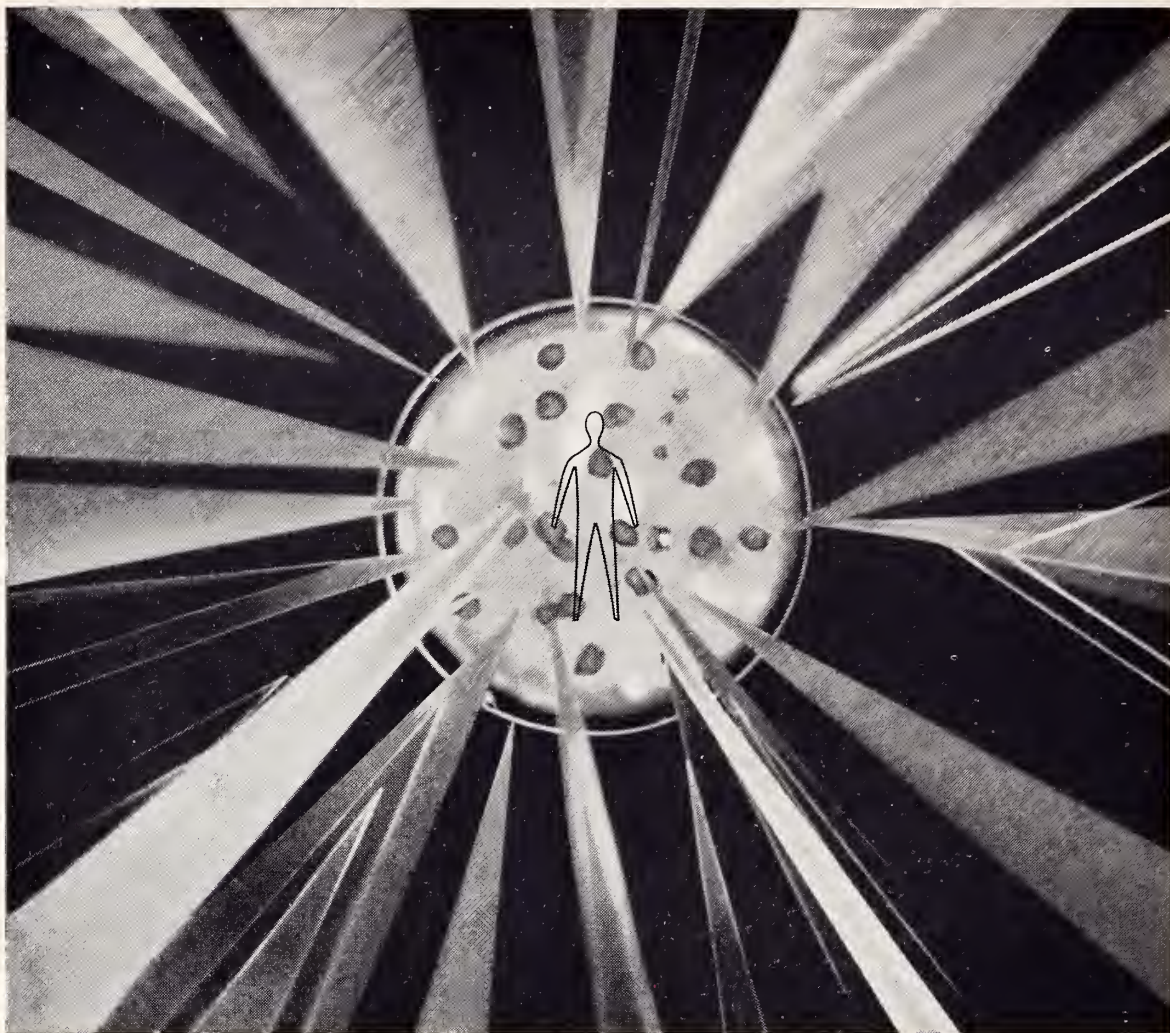
1845 East Thomas Road

- The ideal place to **speed your patient's recovery** after adequate hospital care.
- Attractive, happy surroundings, old-fashioned kindness, plus loving consideration will **make your patient's recovery faster**.
- **Rehabilitative care** for elderly or handicapped patients.
- **Physical therapy** service directed by John A. Julian, Registered Physical Therapist.
- **Inhalation therapy** for IN & OUT-PATIENTS is directed by the well known Mrs. Ruth H. Watson, R.N., A.A.I.T.
- **Registered nurses** on duty at all times.
- **Orderlies available** for male patients.
- **Homelike cooking** by women cooks; **special diets** supervised by qualified dietitian.
- **Rates** start at \$12.50.
- **Admittance by** Doctors of Medicine only.
- Our facilities are **recognized by the Arizona Industrial Commission** for the admission of patients upon the approval of the attending physician.

**White Angel
Inn
Phone
277 - 6651**



**White Angel
Inn
Phone
277 - 6651**



Why do we say Mysteclin-F is decisive in infection?

because...it contains phosphate-potentiated tetracycline
for prompt, dependable broad spectrum antibacterial action.

because...it contains Fungizone, the antifungal antibiotic,
to prevent monilial overgrowth in the gastrointestinal tract.

Mysteclin-F resolves many respiratory, genitourinary and gastrointestinal infections—as well as such other conditions as cellulitis, bacterial endocarditis, furunculosis, otitis media, peritonitis, and septicemia. It combats a truly wide range of pathogenic organisms: gram-positive and gram-negative bacteria, spirochetes, rickettsias, viruses of the psittacosis-lymphogranuloma-trachoma group.

Available as: Mysteclin-F Capsules (250 mg./50 mg.) Mysteclin-F Half Strength Capsules (125 mg./25 mg.) Mysteclin-F for Syrup (125 mg./25 mg. per 5 cc.) Mysteclin-F for Aqueous Drops (100 mg./20 mg. per cc.)

*Mysteclin®, 'Sumycin'® and 'Fungizone'® are Squibb trademarks.

Mysteclin-F

Squibb Phosphate Potentiated Tetracycline (SUMYCIN) plus Amphotericin B (FUNGIZONE)

For full information,
see your Squibb
Product Reference
or Product Brief.

SQUIBB



*Squibb Quality—
the Priceless Ingredient*

House Of Delegates - April 28, 1961

RESUMÉ

ELECTION OF OFFICERS

Officers elected for a term of one year are:

President-elect — Clarence E. Yount, Jr., M.D.

Vice president — William B. Steen, M.D.

Secretary — Paul L. Singer, M.D.

Treasurer — Arthur V. Dudley, Jr., M.D.

Speaker of the House — Paul B. Jarrett, M.D.

Editor in Chief — Darwin W. Neubauer, M.D.

RESOLUTIONS ON AMENDMENTS

The following amendments were to be transmitted to the board of directors for referral to the association attorney and to proper committees for study, recommendation and revision in order to be submitted to county societies three months in advance of the 1962 annual meeting for study and discussion:

1. *Chapter VII, Section 4. Standing Committees (1) Scientific Assembly.*

This committee shall consist of at least nine members appointed by the president with the approval of the board of directors, including the president-elect as consulting co-chairman. Two members shall be from Pima County, four members from Maricopa County, and the remainder from the remaining component societies. Committee membership should include representation of the major branches of medicine to insure preparation of a program of interest to all members of the association. Staggered terms shall be for three years. The chairman shall serve one year after appointment, following two years of membership on the committee, preferably one of which shall have been an assistant chairman. The committee shall appoint an assistant chairman and a secretary from among its members. The duties of the committee are to arrange for the annual meeting, including (a) selection of scientific subjects and speakers, (b) business, and (c) social activities.

The committee shall formulate a working format and assignment of specific duties and functions to its members. The committee shall meet within six weeks after each annual meeting, six months thereafter, and as many other times as deemed necessary by the chairman, and shall have the power to plan three years in advance and to obligate space at locations specified or approved by the board of directors.

The committee shall, with the approval of the board, set forth the rules of the meeting with regard to discussion and publication of the papers given, and to registration and permission to attend the scientific meetings.

No specialty group composed of members of this association may hold a meeting of the specialty group during the term of the general meeting without the approval of this committee. In no case shall such specialty meetings conflict in time with any of the meetings of the association during the annual meeting.

The Scientific Assembly Committee shall issue the programs including publication thereof in the *Journal*, and shall have general charge of arrangements with the assistance of a Committee on Arrangements, if one be deemed necessary.

1a. *Chapter VIII, Section 10, Second Session. Annual Meeting. (k) Meeting Place*

Delete complete paragraph

2. *Chapter VI, Section 4. Vacancies, Replacements*

The board shall have the authority to elect replacements for any vacancies in office except that of the president and in its membership, such replacements to serve until the next election. In the event of a temporary inability upon the part of any officer except the president to perform the duties of his office, however, the board may by resolution appoint any other officer to perform

ARMA Reports

the functions of said office without the office being vacated, such appointment to be limited to the period of inability and, in no event, to extend beyond the date of the next annual election.

3. Benevolent and Loan Fund Assessments

Chapter VIII, Section 4, relating to the Benevolent and Loan Fund shall be amended by the addition of the following:

Within five years of the admission of a new member to the association, he must pay to the Benevolent and Loan Fund the sum of One Thousand Dollars (\$1,000). Upon completion of this payment, he shall be eligible for the benefits conferred thereunder.

Every member of the association shall be assessed dues in the amount of \$100 annually, which shall be added to the Benevolent and Loan Fund.

All present numbers of the association shall be assessed the sum of One Thousand Dollars (\$1,000) each, payable within the next five years and upon completion of this payment, each such member shall be eligible for benefits under the fund.

REFERENCE COMMITTEE ON RESOLUTIONS

The House of Delegates, ARMA, approved the following budgets of expenses for periods April 1, 1961 to December 31, 1961 and January 1,

1962 to December 31, 1962: approval of two budgets being necessary due to change in book-keeping system to calendar year basis:

The House of Delegates approves a special assessment of \$15 additional dues, effective January 1, 1962. Allocation to AMEF of \$10 per member from dues received to be continued.

SOCIAL SECURITY AND THE PHYSICIAN

RESOLVED that The Arizona Medical Association again reaffirms its opposition to compulsory physician participation in the Social Security System.
Adopted April 28, 1961.

Keogh-Simpson Legislation and Other Voluntary Retirement Programs for the Self-Employed

RESOLVED, that the Arizona Medical Association reaffirms its support for Keogh-Simpson tax legislation and all other similar efforts to provide all self-employed individuals, including physicians, nurses and other segments of the medical profession, with the opportunity to save and plan for their own retirement.

Adopted April 28, 1961.

All Federal Legislation (e.g., Forand Bill, King-Anderson Bill (H.R. 4222) Proposing Health Care Under the Social Security System and Any Other Type of Socialized Medicine Measure

	9 months April 1, 1961 to December 31, 1961	12 months January 1, 1962 to December 31, 1962
Annual Meeting	\$ 15,800	\$ 15,800
Articles of Incorporation	50	100
Benevolent and Loan Fund	50	100
Board of Directors	850	1,150
Central Office Advisory Committee	125	200
Executive Committee	375	540
General Fund	63,033	78,097
Grievance Committee	50	100
History & Obituaries Committee	50	100
Industrial Relations Committee	50	100
Legislative Committee	150	235
Medical Economics Committee	100	170
Medical School Committee	100	170
Medico-Legal Committee	50	100
Professional Committee	750	1,055
Professional Liaison Committee	750	1,055
Public Relations Committee	750	1,000
Publishing Committee	37,724	44,525
Scientific Assembly Committee	300	440
Woman's Auxiliary	1,000	1,000
	\$122,107	\$146,037

RESOLVED, that The Arizona Medical Association reaffirm its opposition to any pending federal legislation or any future legislation proposing socialized medicine by way of any blanket and non-individualized medical care plan for the aged 65 and older segment of our population, or any other segment of the American people, and which is not limited to individuals with proved need, demonstrated by way of suitable means test, and which does not clearly provide for local or state government administration.

Adopted April 28, 1961.

Voluntary Health and Accident Insurance Program to Cover the Health Needs of our Senior Citizens and Other Segments of the Population

RESOLVED, that The Arizona Medical Association reaffirms its support of the principle of privately administered, legitimate, voluntary health, accident and disability insurance programs to cover not only the 65 years and older segment of our population, but all segments of our population.

Adopted April 28, 1961.

Kerr-Mills Bill and Similar Legislation to Provide Health Care for the Needy Aged

RESOLVED, that The Arizona Medical Association endorse and actively support the Kerr-Mills bill and similar legislation to provide health care for the needy aged and the principle of state or local administration of such a program, and be it further

RESOLVED, that The Arizona Medical Association through proper agencies within that organization actively and intensively promote the passage of enabling Arizona state legislation to implement the Kerr-Mills bill benefits for the needy aged of Arizona in the coming state legislative session and thereafter as necessary.

Adopted April 28, 1961.

Distribution of Actions of the Arizona Medical Association Relating to Endorsement of the Kerr-Mills Bill, Voluntary Health and Accident Programs, Keogh-Simpson and Other Self-Employed Retirement Plans and Opposition of the Arizona Medical Association to all Federal Legislation Seeking to Socialize Practice of Medicine and the Compulsory Inclusion of Physicians Under the Social Security System

RESOLVED, that the Arizona Medical Association

will provide for the complete distribution within one month after the conclusion of the 1961 medical meeting of the House of Delegates, those approved resolutions relating to the Kerr-Mills bill, voluntary health and accident insurance programs, the Keogh-Simpson and other self-employed retirement plans, and opposition to all federal legislation seeking to socialize the practice of medicine and the compulsory inclusion of physicians under the Social Security System. Such distribution shall be in concise summary form, without omission of essential facts, to the following:

-
1. All members of the Arizona Medical Association
 2. All United States senators
 3. All members of U. S. House of Representatives
 4. American Medical Association officers or executive committee
 5. Editors — "AMA News" and JAMA
 6. Arizona senate members
 7. Arizona House of Representatives members
 8. President and Vice President, U.S.A. and all cabinet members
 9. All other state medical associations
 10. All elected Arizona state officials
 11. Presidents of the Arizona Bar Association, Dental Association, Pharmaceutical Association, Hospital Association, Nurses' Association
 12. Editors of all Arizona newspapers
 13. News editors of all Arizona radio and television stations
 14. Presidents of CBS, NBC, ABC and Mutual Broadcasting Company
 15. Associated Press, United Press International
 16. President of Arizona Medical Association Women's Auxiliary
 17. Presidents of all national hospital, physicians' and nurses' organizations
 18. State and national chairmen of the Democratic and Republican parties
 19. Editors of *Medical Economics*, *New Medical Matteria*, *Arizona Medicine*, *Medical World News*
 20. Presidents — American Chamber of Commerce, American Legion, Veterans of Foreign Wars, National Association of Manufacturers
-

and be it further

RESOLVED, that in the distribution to state and territorial medical associations, a personal letter be included to the president of each association, urging passage of and similar distribution of these same actions, most of which have been or will be passed by the House of Delegates of the American Medical Association, so that unanimity of opinion and action among the physicians of the United States will be apparent. Such action and distribution will strong-

ARMA Reports

ly influence members of Congress in their deliberations over socialistic legislation relating to the medical profession, and will put the lie to the often-repeated statement that the official policy and actions of the American Medical Association do not represent the opinions of its member physicians.

It was regularly moved and carried that this resolution be adopted; however, as to distribution, that it be passed on to the board of directors allowing the distribution to be at the discretion and advice of the central office and the board of directors.

Introduction of Resolutions by the Arizona Delegates to the American Medical Association House of Delegates, Embodying the Actions Taken by the Arizona Medical Association House of Delegates on the Kerr-Mills Bill, Voluntary Health and Accident Insurance Programs, Keogh-Simpson and Other Self-Employed Retirement Plans and Opposition of the Arizona Medical Association to all Federal Legislation Seeking to Socialize Practice of Medicine and the Compulsory Inclusion of Physicians Under the Social Security System.

RESOLVED, that the Arizona physician delegates to the American Medical Association House of Delegates be directed to introduce and work for reaffirmation by the American Medical Association, in resolution form, the principles embodied in the actions of the Arizona Medical Association in relation to the Kerr-Mills bill, voluntary health and accident insurance programs, Keogh-Simpson and other self-employment retirement plans and opposition of the American Medical Association to all federal legislation seeking to socialize the practice of medicine and the compulsory inclusion of physicians under the Social Security System, so that Congress and the nation might clearly and currently understand the position of the physicians of this country on each of these subjects, and be it further

RESOLVED, that instructions to distribute promptly complete information summarizing these actions to all physicians in the United States, all congressmen and all other appropriate areas, groups and individuals, be included in the resolutions.

Adopted April 28, 1961.

Studying, Reporting and Recommending to all Members of the Arizona Medical Association an Actuarially Sound Program to Combine Medical

Student Loan, and Physicians' Voluntary Disability and Retirement Plan Under One Fund

RESOLVED, that the appropriate committee(s) of the Arizona Medical Association be directed to study in the coming twelve-month period the feasibility of developing by the physician-members of that organization, for the purposes of (1) providing medical student, internship and residency loans at a reasonable rate of interest on a deferred repayment basis, and (2) providing physician disaster assistance in the event of death or disability prohibiting the practice of medicine or other remunerative work, and (3) providing retirement income at a specified age, in specified amounts, under economically sound principles that will protect and perpetuate the total fund; and be it further

RESOLVED, that an interim report on this project be submitted to each county medical society in Arizona six months from now on progress of this project that a final report and recommendations on such a program from the appropriate committee and/or the board of directors of the Arizona Medical Association be submitted to the House of Delegates of the Arizona Medical Association at the 1962 annual meeting, and that action on this program by the House of Delegates be then forwarded to every member of the Arizona Medical Association; and be it further

RESOLVED, that the Arizona Medical Association be directed to distribute copies of this resolution to the American Medical Association, all state and territorial medical associations, all congressmen and national leaders, and all Arizona Medical Association members, so that all national legislators, physician leaders in the American Medical Association, and the physicians in Arizona, will know that immediate and intensive effort is being made to provide through such a non-government program: (a) funds to enable all qualified medical students in need of financial assistance to obtain a medical education, and (b) disability and retirement benefits, through a non-government private physician-administered, *voluntary* program to physicians in need of such benefits, thus all reason and need for the federal government to impose a compulsory retirement on physicians would be eliminated.

Adopted April 28, 1961.

Implementation of Voluntary Combined Student Loan, Disability and Retirement Plan

for Physicians by Resolutions in the American Medical Association House of Delegates

RESOLVED, that the Arizona Medical Association House of Delegates direct the Arizona physician delegates to the American Medical Association House of Delegates to place, in resolution form, the principle and program embodied in the resolution(s) previously passed relating to this subject before the American Medical Association House of Delegates, requesting endorsement of this principle and program, and official indication that the American Medical Association will help to promote and co-ordinate such a program among the state and territorial medical associations desiring such a program, and will give prompt distribution of the general outline of this program to all state and territorial medical associations, and all congressmen and national leaders, so that the national legislators and physicians of this country will know that intensive effort is being made to provide through such a private program: (a) funds to enable all qualified medical students, in need of financial assistance, to obtain a medical education, and (b) disability and retirement benefits through a non-federal, private, physician-administered, voluntary program to physicians in need of such benefits, thus all reason and need for the federal government to impose compulsory retirement coverage on physicians would be eliminated.

Adopted April 28, 1961.

Action by the Physicians of Arizona to Eliminate the Problem of Air Pollution in this State

RESOLVED, that the Arizona Medical Association House of Delegates affirm the intent of the Arizona Medical Association and its physician members to work vigorously during the coming year and as long as necessary in full co-operation with all community groups desiring an effective solution to the problem of air pollution.

Adopted April 28, 1961.

Repeal or Elimination of All Taxes on Prescriptions

This resolution is to be referred to the Legislative Committee for further study.

AMA DUES INCREASE

RESOLVED, that ARMA go on record as favoring the action of the AMA House and the board of trustees to increase dues by \$10 on Jan 1, 1962 and \$10 additional on Jan. 1, 1963.

Adopted April 28, 1961.

Implementation of Kerr-Mills Law and Defeat of Forand Type Legislation

RESOLVED, that the House of Delegates of The Arizona Medical Association, Inc., meeting in annual session in Scottsdale, Arizona, this 28th day of April, 1961, commend those members of Congress and all others who have maintained steadfast opposition to furthering the cause of socialism; and be it further

RESOLVED, that every effort be made to cause to be implemented in this state the Kerr-Mills law, a voluntary program to help every aged American who needs assistance to pay for health care; and be it further

RESOLVED, that The Arizona Medical Association, Inc., continue to take an active part in the defeat of any and all proposed Forand-type legislation such as HR 4222, known as the King bill, which will ultimately and undesirably lead to a compulsory national health insurance program at staggering cost to every American, under the Social Security System; and be it further

RESOLVED, that a copy of this resolution be forwarded to the President of the United States, the Vice President of the United States, the Speaker of the House of Representatives, the members of the House Ways and Means Committee, the Secretary of Health, Education and Welfare, the Governor of the State of Arizona, the honorable members of the Arizona congressional delegation, the Board of Trustees of the American Medical Association, and to all state medical societies.

Adopted April 28, 1961.

ANTI-VIVISECTION LEGISLATION

BE IT RESOLVED, that

1. The Arizona Medical Association, Inc., is unalterably opposed to all such legislation on animal experimentation under consideration by the Congress of the United States, and

2. This resolution be forwarded to the American Medical Association and to the Arizona members of the United States Congress.

Adopted April 28, 1961.

NEW MARICOPA COUNTY HOSPITAL

RESOLVED, that The Arizona Medical Association, Inc., go on public record as approving the construction of a new Maricopa County Hospital and urging on the citizens of Maricopa County favorable action on a bond issue referendum that would make such construction possible.

Adopted April 28, 1961

ARMA Reports

Establishment of a Commission on the Relation of Medicine to Optometry, by the House of Delegates of the American Medical Association

RESOLVED, that the House of Delegates of the American Medical Association establish a commission on the relation of medicine to Optometry, to be appointed by the Speaker of the House; at least half the members of which commission shall be physicians practicing in the ophthalmological branch of medicine; and be it further

RESOLVED, that it shall be the specific function of this commission to conduct a broad study, from the standpoint of the public interest, of the problems involved in the present relation of medicine to optometry, and to explore all possible and desirable solutions to these problems; and be it further

RESOLVED, that the board of trustees be requested to provide adequate personnel and funds for the proper performance of the duty assigned to this commission; and be it further

RESOLVED, that this commission shall report to the House of Delegates not later than June 1962.

The committee recommended that as it did not have sufficient information to properly evaluate the implementations involved, no action be taken on this resolution and that it be referred to the Professional Liaison Committee for their study and recommendations.

This portion of the committee's report was adopted April 28, 1961.

ELECTION OF DISTRICT DIRECTORS

District directors were elected as follows:

Central District

Clyde J. Barker, Jr., M.D.	(1961-64)
W. Albert Brewer, M.D.	(1961-62)
John A. Eisenbeiss, M.D.	(1961-64)
Wallace A. Reed, M.D.	(1961-64)
Noel G. Smith, M.D.	(1961-64)

Northwestern District

Joseph P. McNally, M.D.	(1961-64)
-------------------------	-----------

Southern District

Earl R. Baldwin, M.D.	(1961-62)
James E. O'Hare, M.D.	(1961-64)
John R. Schwartzmann, M.D.	(1961-64)

Election of Alternate Delegates

Alternate delegates to AMA were elected for the term indicated:

Orin J. Farness, M.D.	(1961-62)
Dermont W. Melick, M.D.	(1962-63)

LESLIE B. SMITH, M.D.

Acting Secretary

PROFESSIONAL COMMITTEE

OCTOBER 29, 1961

Members of the Committee in attendance were Doctors Otto L. Bendheim, Orin J. Farness,

Doctors Otto L. Bendheim, Orin J. Farness, Ray Fife, Howard W. Kimball, Robert B. Leonard, chairman; George G. McKhann, Paul J. Slosser, Lowell C. Wormley.

SUBCOMMITTEE REPORTS

Aging:

It was moved by Doctor Fife and seconded by Doctor Kimball that this committee recommend to the board of directors that it notify all component county medical societies, suggesting that their respective committees on aging work actively with the county supervisors in helping to improve out-patient and hospital services (covering the aged group). On a show of hands, the motion was carried. Doctors Slosser and Wormley requested that their vote be recorded in the negative.

It was moved by Doctor Kimball, seconded by Doctor Farness, and carried that this committee go on record as recommending to the board of directors that a special committee be formed by the state association to investigate the possibility of prepaid insurance to be provided by a combination of the city, county and state governments of Arizona, to take care of the indigent and medically indigent.

Cancer and Medical Education:

In the absence of Doctor Brewer, Doctor Leonard reported that the American Cancer Society, through the Arizona chapter, had agreed to operate a central tumor registry among the hospitals in this state. It was considered advisable to ask Doctor Farner, commissioner of the Arizona State Department of Health to seek an attorney's opinion as to the legality of the cancer society operating such a registry in co-operation and to function with the State Health Department.

Doctor Farner pointed out that if the budget promulgated by his department and reviewed by the board of health, receives legislative approval, it will permit his department to obtain the services of qualified physicians who will be in position to take up these matters. With the support of the medical societies, he has hope the legislature will respond favorably.

Doctor Leonard further stated that certainly the cancer society would more than welcome any decision on the part of the State Health Department to take over completely the operation of a tumor registry. The offer of the cancer society to work with the State Health Department to this end is intended only to place in operation a registry which it considers vital and important, even to the point of using some of its funds toward realization. It is not intended to usurp the prerogatives of the Health Department, but rather an effort to support it in this project. Doctor Farner expressed the view that he felt with adequate funds a state-wide cancer registry could be established without the need of the attorney general's opinion.

It was moved by Doctor McKhann, seconded by Doctor Slosser, and carried that the Professional Committee report to the board of directors that it is its recommendation that the Arizona division of the American Cancer Society set up its own voluntary (tumor) registry in co-operation with the (Arizona) State Health Department.

Civil Defense and Safety:

Doctor Kimball, in response to request that he submit a detailed report on civil defense in Arizona, again stated that for all practical purposes it was non-existent. Adequate funds to realize operation had not been appropriated by the legislature, and there has been no co-ordination in civil defense between the county and state levels. In the light of current world events, it is apparent new life has been instilled in Washington and possibly civil defense will be given more consideration in the hope of achieving at least the minimal requirements.

Doctor Kimball presented a listing of recommendations for action, coming out of the Governors' Conference Committee on Civil Defense in a meeting held in Washington, D. C., September 17, 1961, including items dealing with (1) warning; (2) evacuation; (3) fallout protection; (4) preservation of law and order; (5) roles of the national and state (home) guards; (6) food; (7) medical supplies; (8) post-attack rehabilitation; and, (9) public information.

As to fallout protection, it is recommended that the federal government should:

(a) Issue a strong and positive statement in support of the family fallout shelter program for individual families or groups of families.

(b) As evidence of its support of this family fallout shelter program, and to provide an incentive to individuals in obtaining fallout protection, urge Congress to authorize an income tax deduction (in the calculation of net taxable income) for the cost of family fallout shelters (up to a maximum of \$100 per planned shelter occupant) or, failing this, provide some other assistance as an incentive.

(c) Take action to make fallout protection mandatory in all construction built with federal funds or grants or financed with federal loans or guarantees except where this cannot be done without undue hardship.

(d) Promote fallout protection in those private industrial establishments working under defense contracts.

(e) Initiate immediate action to provide fallout protection for the federal armed forces and to assist the states, on a matching-fund basis, in providing similar protection for their armed forces.

(f) Facilitate and expedite the development of the reliable, rugged and inexpensive instruments required as essential equipment in fallout shelters; and

(g) Establish a plan, under FHA or similar arrangements, for long-term (10 years) low-interest loans to low and middle income home owners and to all owners of multi-family dwellings (three or more families) to cover the cost of fallout shelter construction in such homes and dwellings.

It is further recommended that the individual states, in support of the federal program outlined above, take action where needed to provide tax deductions; and citizens and legislatures of every state urged to support the fallout shelter program.

It was the consensus that the press could provide more information to enlighten the public as to fallout and the need for shelters, which properly should issue from the state civil defense department; that effort should be made to schedule a joint meeting between California and Arizona in the matter of disaster medical care, as proposed by Jack B. Collins, staff co-ordinator of the Committee on Disaster Medical Care of the California Medical Association; that the legislature be encouraged to insist upon provision for adequate shelter areas in the construction of any state, county or multi-story buildings, re-

vising building codes where necessary; and that the recommendations of the Governors' Committee outlined above, be recommended for adoption.

A copy of a resolution on physicians' use of seat belts, to be introduced into the House of Delegates of the Michigan State Medical Society, was reviewed for the information of the committee.

It was moved by Doctor Bendheim, seconded by Doctor McKhann, and unanimously carried that we recommend to the board of directors adoption of the recommendations contained in the report of the Governors' Conference, relating to fallout protection set forth in these minutes.

It was moved by Doctor Leonard, seconded by Doctor Fife, and unanimously carried that this committee recommended to the board of directors that the state legislature be encouraged to enact a law making shelter construction on multi-unit and multi-story buildings mandatory, and that component county medical societies likewise be urged to support much measure on the local level.

General Medicine:

Doctor Farness reported that the poison control centers were functioning extremely well. He stated that there appeared in the July issue of *Arizona Medicine* an article on the operations of the centers. Similar programs are in operation in approximately 21 states.

Doctor Farness reported that it had been suggested that contact be made with Doctor Condon, Maricopa County examiner, and Doctor Farner, commissioner of health, with reference to suggested establishment of a state crime detection laboratory, or laboratories, proposed by Ludwig Lindberg, M.D.

It was suggested that communication be established with pathologists in Maricopa and Pima counties, seeking their advice as to need for a crime detection laboratory in the light of practicability on the basis of cost, and that Doctor Lindberg be so informed.

In the matter of rural health, programs in operation on the national and local levels were reviewed and comment made as to the effectiveness of the placement service operated by the association.

Reference was made to the successful National Congress (including exhibit) concluded in Washington, D. C. recently, under the joint sponsorship of the AMA and the Federal Food

and Drug Agency, designed to acquaint and educate the public as to dangers associated with medical quackery, pointing up the large sums of money being spent each year on useless devices and drug preparations.

It was reported that obviously the Arizona Radiological Society has determined to take no further action regarding preliminary allergy testing prior to intravenous injection of contrast materials in radiography. The subject is considered closed.

In the matter of diabetes detection programs sponsored by the American Diabetes Association, its principle is recognized; however, the committee reaffirmed its previous decision that any such program established in this state should be handled on the local level. No further action is indicated.

Doctor Farner reported that the new tuberculosis sanatorium is now under construction and that in due course the matter of furnishing and equipping the institution will be considered prior to its completion.

Mental Health:

Doctor Bendheim expressed his total dissatisfaction with the law recently passed dealing with narcotic addiction and treatment, especially as viewed by some psychiatrists. He feels that the law is inadequate, will be ineffective in the treatment of narcotic addiction, and places more emphasis on the crime aspects rather than the disease.

It was pointed out that legislation was introduced last year which would provide for the creation of an institution for disturbed children. It failed of passage, although the need is considered great. It is anticipated a similar bill will be again introduced in the new year. It is estimated anywhere from 60 to 120 disturbed children are in need of immediate attention. It is felt that the bill has little chance of passage. It is felt that psychiatric beds for these children should be provided outside the Arizona State Hospital, where it is considered unfeasible to adequately treat them.

It was moved by Doctor Bendheim, seconded by Doctor Kimball, and unanimously carried that the Professional Committee recommend to the board of directors that it express favor in the principle of this type of institution without going into details as to location.

Doctor Bendheim reported that he had received a letter from AMA back in August in-

viting him as chairman of this committee to participate in the Annual Conference on Mental Diseases to be held in Chicago, February 2 and 3, 1962. The agenda is considered impressive and will include among others a discussion dealing with uniform commitment procedures and the competition existing among state mental hospitals in the recruitment of psychiatrists for appointment in state institutions. It was pointed out that the chairman did not attend last year and Doctor Bendheim sought an expression of view as to whether or not he should participate as a representative of the association in the forthcoming meeting.

It was determined that the chairman be authorized to attend the 1962 meeting as a representative of the association at the expense of this committee.

Venereal Diseases:

Doctor Slosser stated that cases of syphilis were on the decrease. Approximately 83 per cent of known contacts are being followed through the Arizona Public Health Department. While the record shows improvement and is lower than that reported last year, it is higher than five years ago. The record on gonorrhea unfortunately shows no improvement. The use of penicillin in the treatment is becoming less effective because of increasing resistance. A statistical report was presented and reviewed setting forth case reporting. The inadequacy of case reporting was again discussed.

Water and Air Pollution:

Doctor McKhann reviewed in detail the outline of his proposed program and requested it be presented before the committee to bring the members up to date on studies and developments dealing with water and air pollution. Key personages will be invited to brief the assembly on various aspects of the problem, including weather, legal and legislative facets, research, etc. The theme of the program will be centered around what creates smog and what has been accomplished to date in the line of study and research. It is desirable to hold the meeting in January and Doctor Leonard has agreed to set the date as soon as possible. Location of the meeting in Phoenix (Scottsdale) or Tucson was discussed, it being apparent that it might be more convenient to hold it locally.

PAUL L. SINGER, M.D.
Secretary

January, 1962

"Dear Doctor:"

In your busy night-and-day preoccupation with other people's lives, it is very difficult for you to find time to think about your own future.

Yet face it you must for the sake of your family.

We urge you to join with our many other friends and customers of the medical profession, and arrange for a visit—with your lawyer—to our Trust Department.

Discuss your estate plans in detail. Let an experienced Trust Officer show you how the group-judgment of specialists in the Trust field will insure your estate being handled soundly, economically—and to the letter of your Will.



TRUST DEPARTMENT

Security Building, Phoenix

Resources \$684 Million



in fractures: vitamins are therapy

Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:

Vitamin B ₁ (Thiamine Mononitrate)	10 mg.
Vitamin B ₂ (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B ₆ (Pyridoxine HCl)	2 mg.
Vitamin B ₁₂ Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.



STRESSCAPS[®]
Stress Formula Vitamins Lederle



Calms the Tense, Nervous Patient in anxiety and depression

The outstanding effectiveness and safety with which Miltown calms tension and nervousness has been clinically authenticated by thousands of physicians during the past six years. This, undoubtedly, is one reason why meprobamate is still the most widely prescribed tranquilizer in the world.

Its response is predictable. It will not produce unpleasant surprises for either the patient or the physician. Small wonder that many physicians have awarded Miltown the status of a proven, dependable friend.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS®—400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

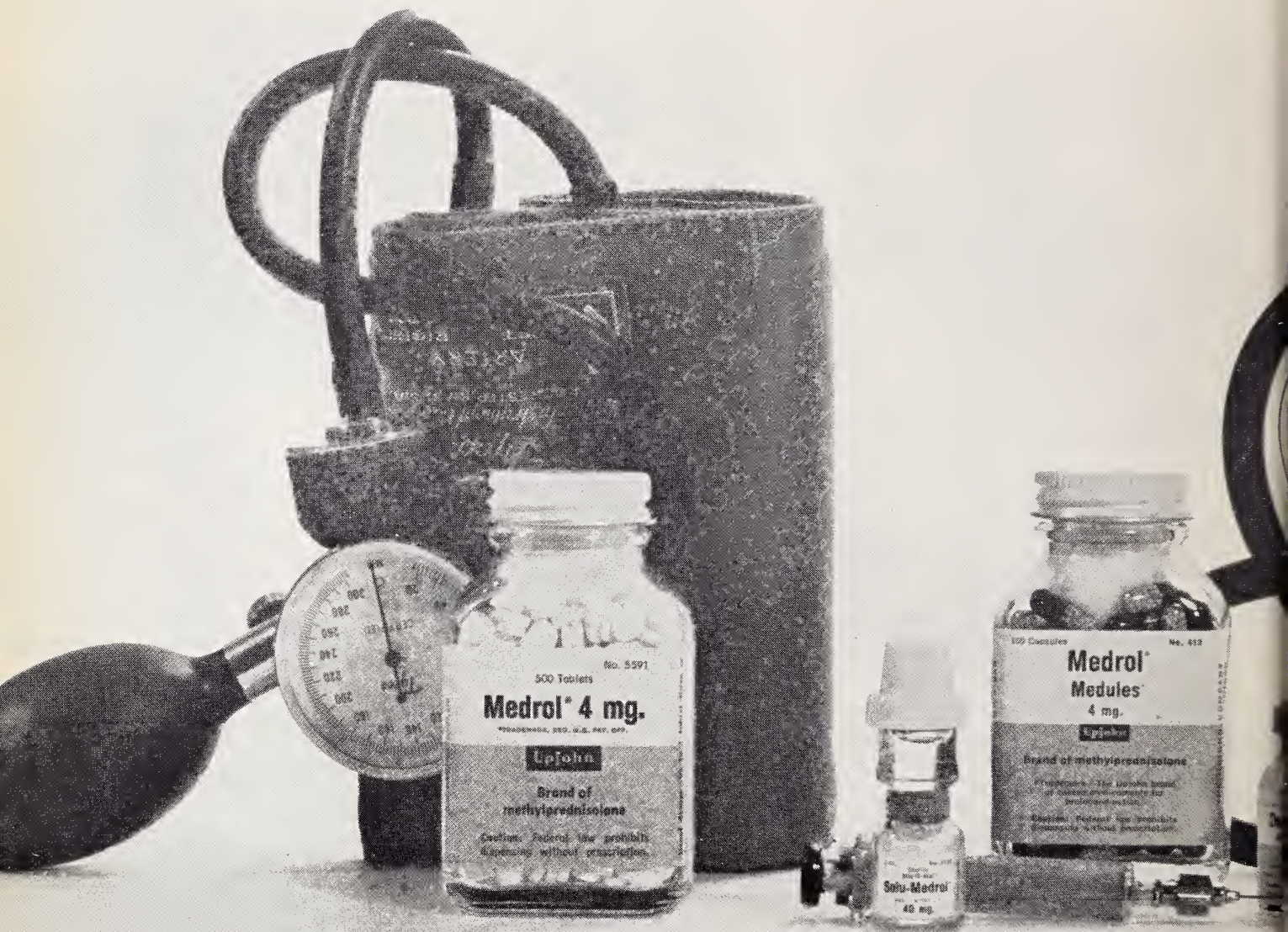


WALLACE LABORATORIES
Cranbury, N. J.

CH-5648

Clinically proven
in over 750
published studies

- 1 Acts dependably —
without causing ataxia or
altering sexual function
- 2 Does not produce
Parkinson-like symptoms,
liver damage or
agranulocytosis
- 3 Does not muddle
the mind or affect
normal behavior



Medrol... (methylprednisolone) a form for every use

MEDROL* TABLETS

2 mg. in bottles
of 30 and 100
4 mg. in bottles
of 30, 100 and 500
16 mg. in bottles of 50

SOLU- MEDROL*

40 mg. in 1 cc.
Mix-O-Vial*

MEDROL MEDULES*

4 mg. in bottles of
30, 100 and 500
capsules
2 mg. in bottles
of 30 and 100

DEPO- MEDROL*

acetate
40 mg./cc.
in 1 cc. a
5 cc. vial
20 mg./cc.
in 5 cc. vial



MEDROL
WITH ORTHOXINE*
TABLETS
in bottles of 30 and 100

VERIDERM† MEDROL_{acetate}
AND
NEO-MEDROL*_{acetate}
0.25% and 1%
in 5- and 20-Gm. tubes

MEDAPRIN* TABLETS
in bottles of 100 and 500

*Trademark, Reg. U.S. Pat. Off.

†Trademark
Copyright 1961, The Upjohn Company
September, 1961

The Upjohn Company, Kalamazoo, Michigan

Upjohn



1 1/4 Grs. Ea.
FLAVORED

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

And like Bayer Aspirin, Bayer Aspirin for Children is quality controlled. No other maker submits aspirin to such thorough quality controls as does Bayer. This assures uniform excellence in both forms of Bayer Aspirin.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1 1/4 grain flavored tablets—Supplied in bottles of 50.

● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

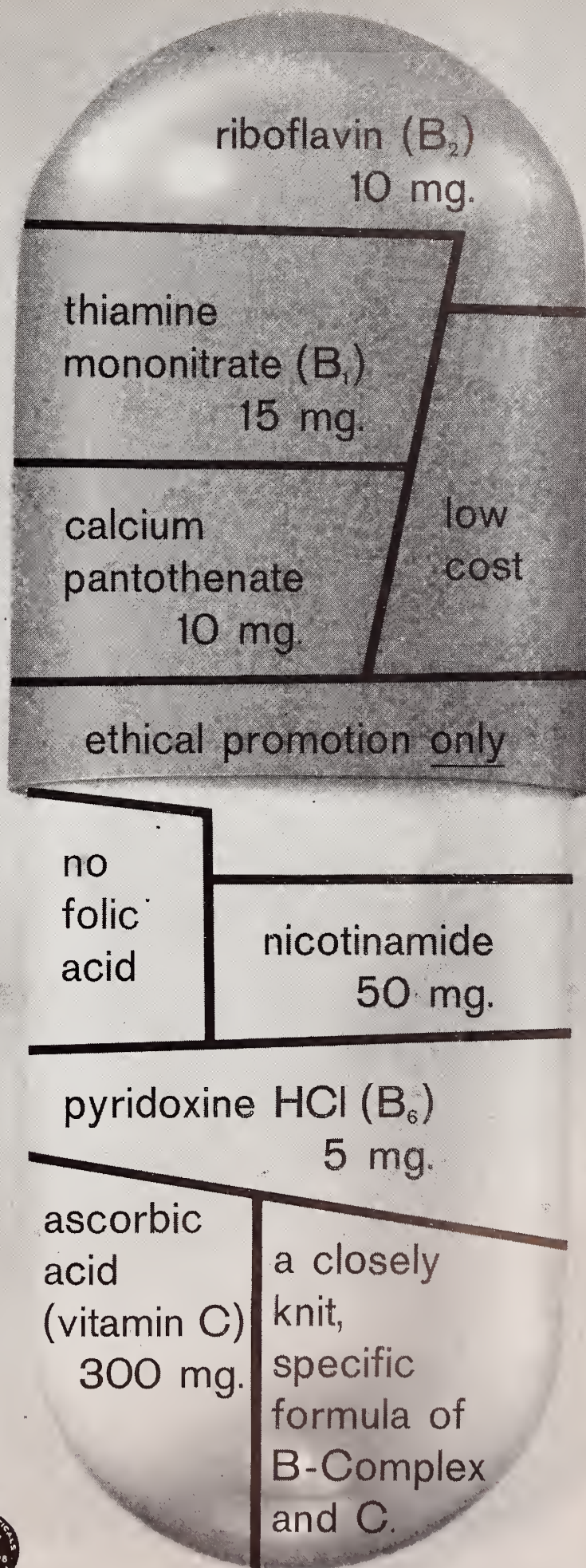
New
GRIP-TIGHT CAP
for Children's
Greater Protection



THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.

this
is
what
Allbee[®]
with C
is
made
of!

A. H. Robins Company, Inc.
Richmond 20, Virginia



blood pressure approaches normal more readily, more safely....simply with **Salutensin[®]** (hydroflumethiazide, reserpine, protoveratrine A—antihypertensive formulation)

Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"¹) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents²⁻⁸ provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron[®] (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide⁹; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide/rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron[®] (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

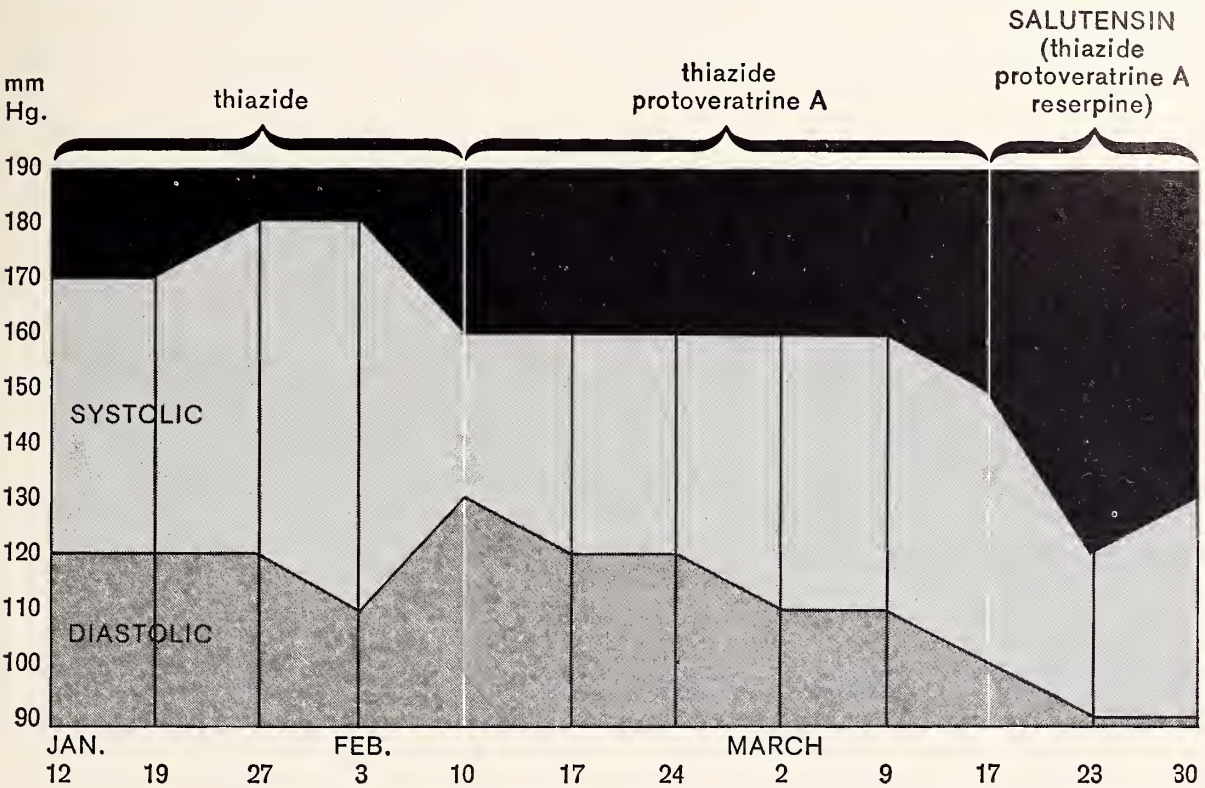
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide- rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

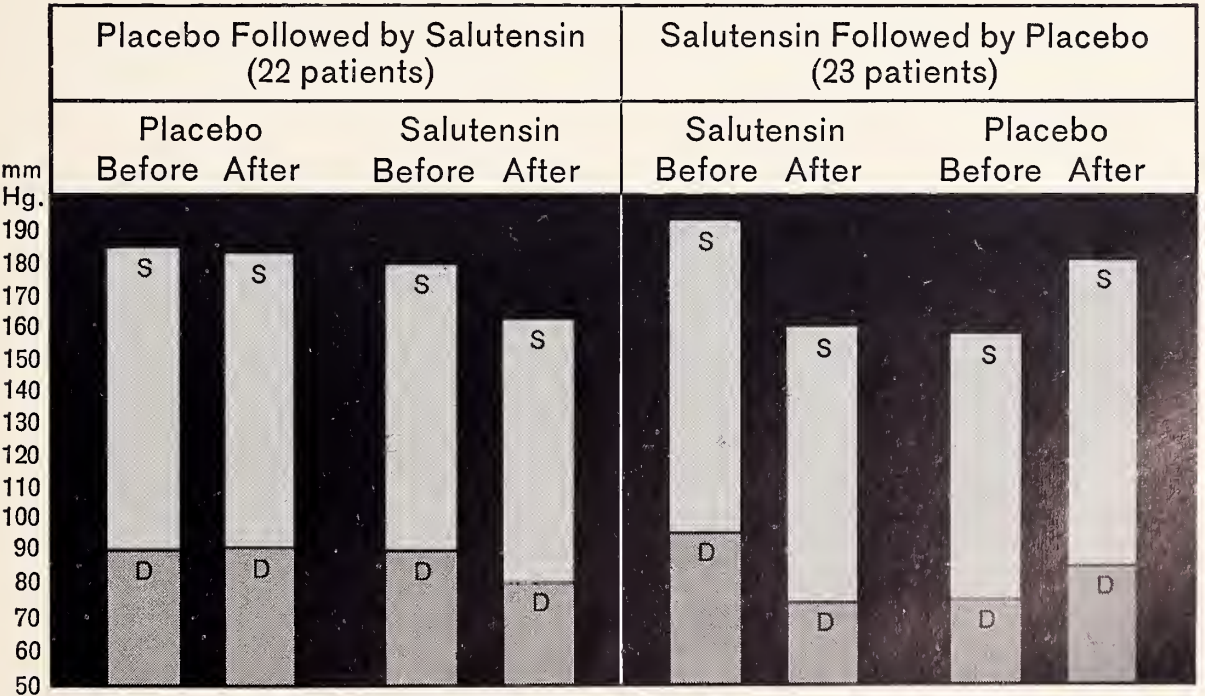
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A “DOUBLE BLIND” CROSSOVER STUDY

Mean Blood Pressures—Systolic (S) and Diastolic (D)



In this “double blind” crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.





BULK IS BASIC



in treating constipation of pregnancy
METAMUCIL®
corrects constipation without irritation

METAMUCIL®

brand of psyllium hydrophilic mucilloid

G. D. SEARLE & CO.

CHICAGO 80, ILLINOIS

Research in the Service of Medicine

"Pregnancy and menstruation¹ are contraindications to the use of the stronger cathartics, since the hyperemia may lead to abortion or excessive menstrual flow."

Metamucil, with its soft, mucilloid bulk, mixes with the intestinal contents and exerts gentle pressure on the intestinal musculature to stimulate normal peristalsis.

In pregnant patients, this natural stimulus strengthens the response of the musculature, reinforces the defecatory reflex in the rectum and, in all but rare instances, resort to colonic irritants becomes unnecessary.

Together with proper dietary management and attention to regularity, mild encouragement to regular evacuation which nearly all pregnant patients require is possible with nonhabit-forming Metamucil.

Metamucil is available as Metamucil powder in containers of 4, 8 and 16 ounces, and as lemon-flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

1. Sollmann, T.: A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology, ed. 8, Philadelphia, W. B. Saunders Company, 1957, p. 206.

Schering

relieve **U.R.I.** distress rapidly

- relieve sneezing, runny nose
- ease aches and pains
- lift depressed feelings
- reduce fever, chills

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx **CORIFORTE**
capsules

Each CORIFORTE Capsule contains:
CHLOR-TRIMETON® 4 mg.
(brand of chlorpheniramine maleate)
salicylamide 0.19 Gm.
phenacetin 0.13 Gm.
caffeine 30 mg.
methamphetamine hydrochloride 1.25 mg.
ascorbic acid 50 mg.

available on prescription only

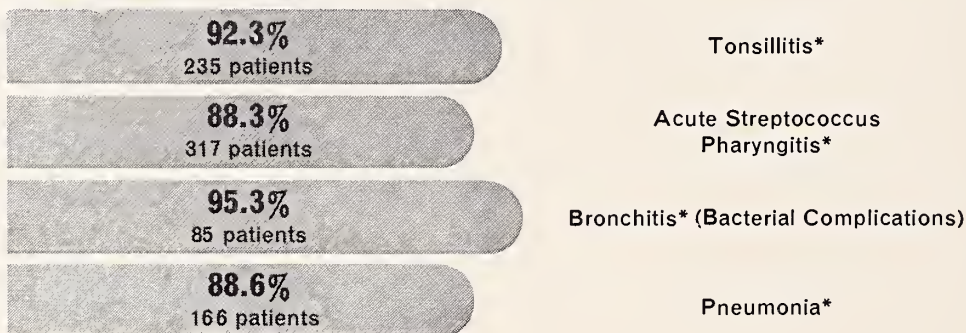
when your tongue blade points to respiratory infection

Ilosone® works to speed recovery



Through the years, Ilosone has built an impressive record as an effective antibiotic in common bacterial respiratory infections. Numerous published clinical studies attest to excellent therapeutic response with Ilosone. Decisive recovery has become a matter of record.

Efficacy of propionyl erythromycin and its lauryl sulfate salt in 803 patients with common bacterial respiratory infections



*References supplied on request.

The usual dosage for infants and for children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours.

For adults and for children over fifty pounds, the usual dosage is 250 mg. every six hours.

In more severe or deep-seated infections, these dosages may be doubled.

Ilosone is available in three convenient forms: Pulvules®—125 and 250 mg.†; Oral Suspension—125 mg.† per 5-cc. teaspoonful; and Drops—5 mg.† per drop, with dropper calibrated at 25 and 50 mg.

*Product brochure available; write
Eli Lilly and Company, Indianapolis 6, Indiana*

†Base equivalent
Ilosone® (erythromycin estolate, Lilly)
(propionyl erythromycin ester lauryl sulfate)

232534



This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.

The Treatment of Advanced Metastatic Tumors

Jeanne C. Bateman, M.D.

This approach to a difficult and at times insurmountable problem necessitates a difference in philosophy of handling the patient. However, these results necessitate a review of Dr. Bateman's management of these patients, for her results apparently offer useful life for a prolonged period in some cases.

THE ADEQUATE management of cancer requires a different approach to the local tumor as compared to the tumor with systemic dissemination. A very small tumor breaking into a blood vessel may result in widespread metastases, while another may reach a huge size and still remain confined to its capsule. Its rate of growth, its degree of differentiation, the presence or absence of barriers to spread, biologic and unknown factors all play a variable role in the metastasizing process. However, even though a widely metastasized tumor may progress slowly, the disease process is now a systemic one and local therapy alone is no longer adequate.

The reluctance to face the fact that a tumor has disseminated, the hopeless attitude of those who feel that a neoplastic growth which cannot be completely removed is an untreatable condition and the limited number of therapeutic tools available for the management of metastatic tumors has often resulted in extreme delay in referring the patient for help.

However, even though many of the patients who come to the chemotherapist are literally terminal, a goodly number of these can be salvaged for indefinite periods. Furthermore, the responses achieved suggest that early recognition of systemic spread of cancer and an earlier attack on the problem might well be gratifying.

Three types of tumors which exhibit varying degrees of responsiveness to chemotherapy will be discussed. These include cancer of the *bronchus and lung*, *adenocarcinoma of the uterus* and *mammary carcinoma*.

BRONCHOGENIC CARCINOMA

Patients with *bronchogenic carcinoma* with remote metastases have a 2.6% chance of surviving *one* year; for those with regional metastases the one year survival is 13.4% and with localized disease the one year survival is 19.3% according to the Connecticut State Statistics.

More recent data compiled for the United States Department of Health, Education and Welfare in September 1960 indicates that the pre-1950 five year *overall* survival rate for carcinoma of the lung and bronchus is 3% for males and 4% for females and it has increased to only 4% and 8% respectively since 1950.

Ackerman points out that the profuse lymphatic network, the great vascularity and the constant respiratory movements of lungs and bronchi tend to facilitate the spread of bronchogenic carcinomas. Lymphatic spread is the most common and involvement of the mediastinal and peritracheal lymph nodes almost always takes place. When pleural adhesions form, more distant pathways of dissemination become available. If tumor grows into pulmonary veins systemic dissemination becomes inevitable and brain, bone, suprarenals and liver become the site of metastases. These facts are the stumbling blocks in the present management of bronchogenic carcinoma and the few patients who attain a long survival probably do so from luck rather than special management unless we are to assume that the overwhelming number of poor survivals result from poor management. Unfortunately, most of the diagnostic and therapeutic procedures currently favored in the management of bronchogenic carcinoma aggravate the nat-

Address presented at the Ninth Annual Cancer Seminar, Arizona Division, American Cancer Society, Tucson, Arizona, January 13, 1961.

ural tendency to shower the body with cancer cells, enough of which are viable to set up housekeeping elsewhere.

The following observations concern 100 patients — 87 men and 13 women — with cancer of the bronchus and lung whom we have treated with maintenance chemotherapy during the last eight years. All had advanced disease as evidenced by the fact that 17 had signs and symptoms of central nervous system involvement, 19 had osseous metastases and 15 had hepatic metastases, etc. Most had had prior definitive surgery and/or X-radiation. Squamous carcinoma was the most frequent cell type (41 cases); in 12 patients a diagnosis was made from the X-ray finding plus demonstration of cancer cells in pleural fluid, bronchial washings or sternal marrow. It is nice to be sure that one is treating cancer when using oncolytic agents!

CARCINOMA OF BRONCHUS AND LUNG
TREATED WITH MAINTENANCE
CHEMOTHERAPY

Number	Age
13 females	44-69 (average 55 years)
87 males	39-83 (average 59 years)

PATHOLOGY TYPES

Squamous carminoma ..41	Adenocarcinoma22
Undifferentiated15	Alevolar cell 3
Oat Cell 7	Undetermined12

Temporary regression of advanced metastatic bronchogenic carcinoma treated with various alkylating agents has been reported in the literature but it is usually of very brief duration.

Nitrogen mustard alone or in combination with X-radiation probably has given the best overall results in one-course treatment. Because such results are extremely limited timewise, it has seemed desirable to try a program of maintenance chemotherapy with out-patient management. This has proven helpful in a number of ways. Some of these patients have been able to go back to work for varying periods, a number have had important jobs and a few went on vacation trips as well. By coming regularly for treatment the patient feels reassured, his management is smoother, and the complications which may arise can be detected and treated. A clinically non-toxic drug must be available for this type of management and we have leaned heavily on Thio TEPA. Two patients received only ODEPA (N-(3-oxapentamethylane)-N', N'' diethylenephosphoramide); three more received

it at some time. We no longer use ODEPA because of its unpredictable and often serious effect on red blood cells. One patient received Cytoxan (cyclophosphamide) only; two more had Cytoxan for brief periods. This is a useful drug except for its tendency to produce alopecia which is an unpleasant side effect in maintenance therapy. Four individuals received courses of HN₂ while still in the hospital and after discharge home this was followed by maintenance chemotherapy with Thio TEPA. A pre-treatment hemoglobin and white blood cell count were obtained in all cases at each visit and dose of drug was adjusted to the white blood cell count. If the patient had pleural or pericardial effusion drug was injected into the serosal cavity following tap. If local nodules or a large liver were present these were the site of injection. Drug injection into the area of bone lesions not infrequently resulted in pain relief, although generally it is our practice to recommend supplementary X-ray therapy for osseous metastases.

Otherwise, treatment was given by intravenous injection and, in a few patients with brain metastases, the intracarotid route was employed. Thio TEPA is easily managed because of its ready solubility in a small amount of diluent (we use 10 mg./cc. water) and because of its nonvesicant nature. An initial dose of 60 mg. was given in average cases; 45 mg. for poor risk cases when a local route was used; 30 and 15 mg. were used as an initial intravenous dose. If the white blood count was lower on the subsequent visit a lower dose was employed and the dose was omitted for a white blood count of 3,000 or less. We now recommend a 5 to 7 day interval for bronchogenic carcinoma. During the initial hospital stay a more frequent dosage may be used, but with eaution. Supplementary therapy with steroids is particularly desirable in patients with bronchogenic carcinoma probably because of the very high rate of adrenal metastases. We start with cortisone 25 mg. by mouth twice daily and give a long-acting adrenocorticotropic hormone in doses of 40 to 80 units intramuscularly on the day of office or clinic visit. This, with mild analgesics, tranquilizers and cough medication as well as diuretics and cardiac drugs if needed completes the program. We avoid Vitamin B12 and folic acid in *all* our cancer patients but occasionally give other vitamins. On such a program we have managed to better somewhat the standard survival figures.

Three examples of this type of management are given:

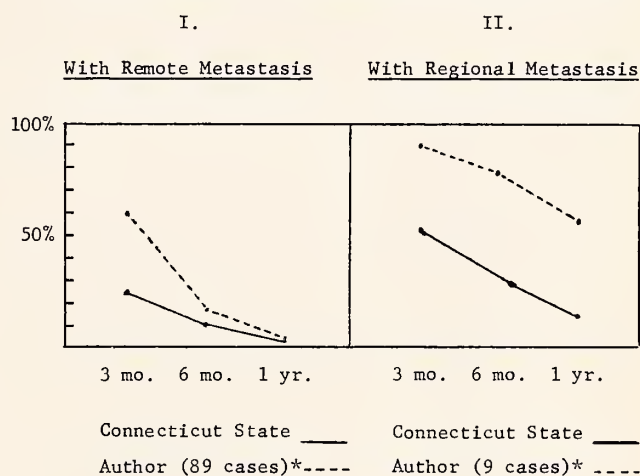
F. G. a 43 year old man sustained an exploratory thoracotomy and biopsy in June 1954 for oat cell carcinoma of the right upper lobe with extension along the superior vena cava and around the pulmonary vessels. He was treated with X-radiation. By December 1954 this patient was miserable, complaining of neuralgic pains in his arms and fullness in the head. He was started on chemotherapy with Thio TEPA, which was temporarily changed to ODEPA, both being given by the intravenous route at weekly intervals. Shortly thereafter he was back at work and four months later was playing a limited amount of golf. The white blood count was maintained between 2,000 and 5,000. His treatment interval, probably unwisely, was increased to 10 days. He did well for one year and even drove to Minnesota during the second summer. However, by then he was slipping and in August 1956 there was X-ray evidence of osseous metastases. The patient continued to work but died quite suddenly on October 2, 1956, 22 months after institution of treatment. He had received a total dose of 840 mg. of Thio TEPA and 255 mg. of ODEPA.

J. Ga., a 53-year-old man, developed shortness of breath in October 1959. An exploratory thoracotomy in November 1959 revealed bloody pleural effusion, widespread metastatic involvement of the pleura and numerous tumor nodules in the right lower lobe. The pathology diagnosis was anaplastic epidermoid carcinoma. X-radiation with a tumor dose of 4100 Roentgens was given to the right anterior and posterior hemithorax. By February 1960 there was evidence of recurrent effusion. Therapy with Thio TEPA was given at 5 day intervals into the right lower chest where the needle appeared to penetrate gritty tumor. Cortisone in small doses and adrenocorticotrophic hormone were used as supplementary therapy. The patient was able to return to a very important government job for five months. At this time there was increasing dyspnea and the course was downhill. The patient expired on September 13, 1960, seven months after institution of chemotherapy. His total dose of Thio TEPA was 897 mg. One can only speculate what his survival might have been had chemotherapy been instituted at the time of initial surgery.

J. Gr., a 57-year-old man, had a left upper

lobectomy for epidermoid carcinoma metastatic to hilar nodes in January 1956. In July 1956 he developed convulsions and a diagnosis of cerebral metastases was made. Intravenous Thio TEPA (20 mg. every other day for 6 doses) was given. The patient improved and was discharged from the hospital to the clinic on Dilantin, Miltown and digitalis. He was soon driving his own car. Intravenous therapy with Thio TEPA was continued at weekly intervals achieving a total dose of 891 mg. by October 23, 1957. The patient was admitted to the hospital on October 31, 1957 with fever and expired the next day, 17 months after institution of maintenance chemotherapy. At autopsy metastatic infiltration of the pericardium was found.

PER CENT SURVIVAL IN CARCINOMA OF BRONCHUS AND LUNG



* All treated with maintenance chemotherapy.
10 in Group I. had supplemental X-radiation.

The impression is unavoidable after reviewing cases such as these that although presently available chemotherapeutic agents are not curative they are in bronchogenic carcinoma a useful adjunct to surgery and X-ray and in all except perhaps small isolated lesions should be started early and used persistently. Even for the small lesion the use of a tumor and wound sterilizing agent is highly desirable.

II

METASTATIC ADENOCARCINOMA OF THE UTERUS

Chemotherapeutic management of squamous carcinoma of the cervix has been rather discouraging. Recent reports by Sullivan who administered methotrexate by the intra-arterial route to

Original Articles

patients with advanced epidermoid carcinoma of the cervix have illustrated some dramatic regressions.

The results of chemotherapy for adenocarcinoma of the uterus are better and this appears to apply to both adenocarcinoma of the endometrium and of the cervix.

Our first experience with this tumor occurred in March 1954 when V. G., a 58-year-old woman, appeared in the clinic with a large fungating bleeding tumor which replaced the cervix. A biopsy revealed adenocarcinoma and 30 mg. of Thio TEPA were injected into the mass. Two weeks later the tumor appeared drier and smaller. A second biopsy was taken and 40 mg. of drug were injected. One week later an hysterectomy was performed. A friable polypoid mass only 3 cm. in width was present in the cervix. There were further marked changes in the microscopic appearance of the resected tumor. The possibility that we had a useful agent for the treatment of metastatic adenocarcinoma of the uterus suggested itself. To date we have treated a total of 30 patients whose ages range from 39 to 74 years with an average of 60 years.

DILATION AND CURETTAGE

Dilatation and curettage was recorded as being done in 12 patients and a preliminary biopsy in 4 cases. Surgery was the most common primary form of therapy having been achieved in 13 cases. Although 7 patients received some form of X-radiation only, 6 had X-radiation prior to and 3 following surgery. Two patients had had prolonged treatment with testosterone and one with stilbestrol for vaginal bleeding which turned out to be due to cancer. One patient had no prior therapy.

When first seen by us 10 individuals had X-ray evidence of multiple pulmonary nodules; two had rectal metastases; 9 vaginal metastases; 12 large pelvic or abdominal masses; 1 bone lesion; 2 liver metastases; 1 supraclavicular mass and 1 inguinal node metastasis. Six patients had ascites and four were azotemic due to ureteral obstruction.

Chemotherapy was given on an out-patient basis at weekly intervals each dose being adjusted to the white blood cell count. In patients in whom pulmonary metastases were the predominant symptom the intravenous route was used; in other cases the drug was injected directly into tumor whenever possible. The average survival in 7 living patients is 27 months (1

to 69 months); in 23 patients who expired or were lost to follow up it averages 5.5 months (0.5 to 22.5 months). Objective regression of tumor has been impressive only in a few patients with pulmonary metastases and in several patients with vaginal or abdominal masses. In other patients who have survived for months and years with extremely slow progression of local disease and no development of distant metastases the impression is unavoidable that some degree of palliation has been achieved.

EXAMPLE

An example is E. B., a 69-year-old woman, who received intrauterine radium in February 1947 following which an hysterectomy was done for adenocarcinoma of the uterus. Nine years later in the Winter of 1956-57 the patient had respiratory infections and an increasingly severe cough. A chest X-ray in July 1957 revealed multiple pulmonary nodules. The patient was started on intravenous chemotherapy with Thio TEPA in August 1957. In two months the cough had practically disappeared and has only recurred in a mild form for an occasional short period since that time. By October 22, 1957 there was regression of pulmonary nodules and since that time they have remained stationary. The patient has maintained normal activity in the 41 months since institution of therapy and feels so well that it is difficult to impress on her the importance of continuing treatment even once every 2-3 weeks.

An attempt to regress a huge inoperable uterine tumor by the use of chemotherapy alone in one case was unsuccessful. We therefore do not feel that chemotherapy can replace surgery or X-ray as a primary form of treatment. It certainly should be used for metastatic disease, however. A recent report (Roberts, S. Gyn. and Obstet. 111, July 3, 1960) pointed out that 10 to 15% of patients with endometrial carcinoma have pulmonary metastases owing to vascular dissemination of tumor cells. In 4 out of 5 patients tumor cells were found in the blood during curettage; in one, cancer cells had previously appeared in the blood during a pelvic examination. It might be anticipated that manipulation attendant on the insertion of radium or surgery would also result in the out-pouring of cancer cells. The use of chemotherapy at such a time might well reduce the incidence of metastases in a neoplasm which shows a certain responsiveness to such therapy even when implanted.

III

MAMMARY CARCINOMA

Mammary carcinoma, next to skin cancer, is the most frequently occurring neoplasm in this country. There are few families who do not have some member so afflicted. The economic, psychologic and physical cost of this disease is enormous. During the last few years we have sought to establish a program of care for our many advanced breast cancer cases which will permit the patient to resume or continue normal or near normal activity and thus spare the economic, physical and psychological resources of both the patient and her family. We have three main objectives, namely:

- (1) Treatment of the neoplastic process,
- (2) Supportive care of the patient, and
- (3) Control of pain.

Although none of the presently available chemotherapeutic drugs can be called curative, some have produced rather remarkable regression in advanced mamary carcinoma which apparently can best be maintained by continuing treatment for indefinite periods. Supplementary therapy with small doses of adrenocortical and adrenocorticotropic hormones not only increase the pa-

tient's appetite and well-being but tend to protect the hematopoietic system. These are administered when the patient shows signs of inanition and from then on are usually given indefinitely. If the patient has not been started on narcotics pain is often no problem on such a program of chemotherapy. When it does occur it usually can be controlled adequately by the use of a mild agent such as Percodan, a hydro-codeinone preparation which is non-constipating and tolerable over long periods of time. It has rarely been necessary in a busy cancer practice to write prescriptions for morphine and its equivalent. These drugs are reserved for brief terminal episodes. I might add that once a patient becomes a narcotic addict, definitive care of the neoplastic process is a discouraging task.

Since 1953 a total of 393 cases of advanced breast cancer have been so managed. 228 patients have expired and 39 were lost to follow up by virtue of moving to another town or clinic or being transferred to some other therapeutic program. These are grouped together. 26 individuals are alive. This series includes 340 white women, 52 colored women and one colored man.

Previous therapy sustained by these patients is given in the next table:

PRIOR THERAPY IN 393 PATIENTS WITH ADVANCED BREAST CANCER

	Expired	Living		Expired	Living
None	9	2	X-radiation		
Surgery			Primary treatment	21	2
Local resection	13	0	Postoperative	95	8
Simple mastectomy	26	1	For recurrences:		
Radical mastectomy	226	21	1 time	80	8
Resection metastases			2 times	29	2
1 time	12	6	3 times	13	0
2 times	5	0	4 times	4	1
3 times	4	0	5 times	1	0
4 times	2	0	X-ray castration	15	1
Adrenalectomy	2	0	Au ¹⁹⁸	4	0
Oophorectomy	44	3	Radium	2	0
Hormones			P ³²	1	0
Estrogens	32**	0	HN ₂	3	0
Androgens	64	7	TEM	1	0
Cortisone	2				

*23 patients had bilateral mastectomy

**Primary treatment in 6 patients

It is obvious that these patients were not on the whole neglected! In spite of assiduous previous attempts at control they presented themselves with advanced disease and with the findings indicated in the next table.

Experience has gradually taught us not to use the word "hopeless" when we see a patient. In

the last analysis we have no way of prognosticating responsiveness to chemotherapy but it does not appear to be primarily related to extent of disease. Patients who already have survived for a considerable period of time are easier to help than those with a short history. This probably is an immunological phenomena. Examples of ob-

Primary breast involvement	37	Liver	51
Contralateral breast involvement	27	Bone	123
Nodes	128	Fractures	5
Subcutaneous nodules or infiltration	105	Pericardium	3
Inflammatory	17	C. N. S.	29
Ulceration	46	Abdominal masses	9
Lung	63	Ascites	4
Pleural	78	Facial edema	5
Esophagus	1	Uremia	4
		Jaundice	2

jective regression follow maintenance chemotherapy for mammary carcinoma will follow.

G. deA., a 58-year-old woman, had sustained a left radical mastectomy in June 1955. Subcutaneous metastases were noted in August 1957 and when X-ray evidence of metastases to the left third rib (with pathological fracture) and the right 8th rib appeared, hormone therapy with estrogens was instituted. In March 1958 there were bilateral cervical and axillary nodes, the liver filled the upper half of the abdomen and extended to the iliac crest on the right. The patient was started on transhepatic injections of Thio TEPA in doses of 10 to 45 mg. as determined by a pre-treatment white blood cell count, given at 10 day intervals. Small doses of adrenal corticosteroids were administered because of asthenia. The patient returned to her job. By October 10, 1958 the liver was no longer palpable; therapy was changed to the oral route and the patient made a long-anticipated trip to Europe. In April 1959 the liver again became palpable and local injections were reinstituted. Regression again was achieved and from August 12 to October 28 therapy was given by the oral route. Once more the liver enlarged, a needle biopsy demonstrated metastatic carcinoma and the patient is once more on transhepatic injections of Thio TEPA. This patient is alive and able to travel from New York to Washington for treatment almost 3 years after demonstration of advanced hepatic metastases.

Marked regression of a primary inoperable, proliferative ulcerated lesion was achieved in the case of *J. J. This 41-year-old woman* noted a small left breast lump in 1952. In December 1953 she was hospitalized with severe anemia, a left breast destroyed by tumor, regional adenopathy, satellite nodules and X-ray evidence of osseous metastases involving the sternum and ilium.

Following two blood transfusions the patient was discharged to the clinic. Local injections of Thio TEPA were cautiously instituted on December 23, 1953 and continued at weekly inter-

vals in the clinic. Serial biopsies demonstrated cloudy swelling of the cytoplasm, pyknosis of nuclei and finally complete destruction of cancer cells in the tumor which grossly dried and regressed. Five months later there was demonstrable recalcification of the bone lesions. The patient long since had returned to work and there continued for almost two years when she expired from a subdural hematoma following a fall.

Recurrent pleural effusion is a debilitating and exhausting complication of mammary carcinoma. Its control can be achieved in most patients by the injection of a phosphoramidate drug into the pleural space following a tap. The next case demonstrates such control:

E. A., a 39-year-old school teacher, had a right radical mastectomy in 1948; in 1952 she received X-ray therapy for metastases to the left femur. In 1953 demonstration of pelvic metastases was followed by oophorectomy and testosterone therapy. In August 1954 a solitary nodule in the postcentral gyrus was resected at craniotomy and X-ray therapy was administered to the sacroiliac area. Pleural effusion was tapped January 18, 1955 and 80 mg. of ODEPA (N-(3-oxapentamethylene)-N'N" diethylenephosphoramidate) were instilled. Pleural fluid was aspirated and drug instilled again on April 23rd and May 27th. At the latter date therapy was changed to Thio TEPA which was continued on a maintenance basis by local, intravenous and oral routes depending on the patient's status at each visit. This woman continued to teach school for another year and until the time of her death from recurrent intracranial metastases on September 12, 1956, she did not again develop pleural effusion.

Nodular pulmonary metastases respond nicely to chemotherapy although the lymphangitic type of spread is as resistant to this form of management as it is to all other therapeutic approaches.

H. L., a 62-year-old woman, sustained a radical mastectomy in 1954. In January 1956 there was X-ray evidence of a pulmonary nodule. In

June 1956 there was increasing apathy and weakness of the right upper extremity. By July the lung lesion was larger and an esophageal metastasis had developed. A craniotomy in August 1956 revealed an inoperable mass adjoining the internal capsule. Postoperatively 18 mg. of Thio TEPA were injected into the brain lesion through the burr hole in the skull and maintenance therapy was continued by the intravenous route. The patient gradually regained consciousness and the

use of her extremities. The pulmonary nodules regressed and the patient did remarkably well for six months.

In our experience we have found that pleural, hepatic and many other metastases will best regress if the drug is injected directly into the lesion. We therefore select the site of most serious involvement at each visit and treat it. Our dose schedule for Thio TEPA in advanced cancer is given in the next table:

ROUTES	INITIAL DOSE	MAINTENANCE***	INTERVAL
Intratumor*	45-60 mg.**	5-60 mg.	1-4 weeks****
Intravenous	20-30 mg.**	5-25 mg.	1-4 weeks****

*Includes intrapleural, intrapericardial, transabdominal, transvaginal (route of choice in most cases of ovarian carcinoma), intrahepatic, intracerebral.

**Lower dose in all patients with slowed renal excretion related to age, severe debility, chronic cardiovascular renal disease, shock, etc.

***Dose determined by pre-treatment white blood count. Dose decreased in the presence of falling WBC. Dose omitted for WBC of 3,000 or less.

****One week interval for first year except in cases of bronchogenic carcinoma when 4-5 day intervals are desirable. Subsequently if the disease is controlled the intervals may be gradually lengthened.

Survival times achieved following institution of chemotherapy for advanced mammary carcinoma in 267 patients who have since died or have been lost to follow up ranges from 0.1 to 61 months with an average of 8.8 months. The survival in 26 living cases averages 11.1 months with a range of 3 to 54 months.

Survival time alone is a limited objective but as has been demonstrated, the survival time achieved by maintenance chemotherapy can be remarkably good and an appreciable number of so-called hopeless patients can be returned to a useful and comfortable life by such management.

NEW EDITION OF DIAGNOSTIC STANDARDS

The 11th edition of *Diagnostic Standards and Classification of Tuberculosis*, with color illustrations and a number of revisions to bring it into conformity with present-day practice, has been published by the National Tuberculosis Association. This is the first edition since 1955.

Classifications are included for extra-pulmonary tuberculosis as well as pulmonary, and sections are devoted to diseases and conditions related to tuberculosis, to basic anatomic, pathologic, and physiologic concepts, to the clinical course of tuberculosis, and to diagnostic methods, including roentgenography. A special section on bacteriology describes not only the various strains of *Mycobacterium tuberculosis*, but also the unclassified mycobacteria which sometimes cause disease resembling tuberculosis.

The 1961 edition was prepared by a committee of the American Thoracic Society, medical section of the NTA, headed by William H. Oatway Jr., M.D., of Altadena, California.

Arterial Hypertension

James E. Reeves, M.D.

Thirty-seven patients with arterial hypertension were treated with a combination of rauwolfia serpentina, a thiazide derivative and potassium chloride. Objective and subjective improvement usually occurred. Empathy engendered by a sympathetic physician may have contributed to good results obtained. No placebo control was used.

TREATMENT with flumethiazide, Rauwolfia serpentina and potassium chloride.

Elevation of blood pressure levels above 160 millimeters of mercury systolic and 100 millimeters of mercury diastolic can usually be considered abnormal. Appraising the importance of such an abnormality in a given case requires repeated blood pressure determinations by the physician, a nurse or a member of the family.

Esoteric causes of hypertension can be eliminated without undue difficulty by use of Regitine (phenotolamine) or bonadixine tests and by frequently repeated excretory urograms. For emotionally labile patients who are under pressure, administration of thiopental sodium or amobarbital in varying dosages, often will help in the determination of true blood pressure values.

In all the cases dealt with in the present report, the blood pressure was consistently elevated on repeated examinations. No evidence of pheochromocytoma, dead kidney or major arterial constriction could be found.

The following outline gives a simple plan of diagnostic approach:

- A. A complete past history.
- B. A detailed family history.
- C. A complete physical examination.
- D. Laboratory tests:
 1. Complete blood cell count.
 2. Urinalysis.
 3. Electrocardiogram.
 4. Intravenous pyelogram.
 5. Teleoroentgenogram for cardiac outline.
 6. Phenolsulphthalamine test, determination of non-protein nitrogen, blood urea nitrogen, blood urea nitrogen, basal metabolism rate, cholesterol content, pro-

tein bound iodine, and I-131 uptake, if facilities permit.

D. Special Tests:

1. Cold pressor test.
2. Histamine test.
3. Sodium thiopental or amobarbital sleep tests.
4. Phentolamine, piperoxan hydrochloride, or dibenamine tests for pheochromocytomas.

Most of this plan of study could be used by almost any physician in his own office. Many therapeutic agents are available and each has its advocates.

One or more of the agents or methods listed below will be effective in reducing elevated blood pressure in most patients.

1. Central Action Agents:

- A. Rauwolfia derivatives, all from the apocynaceae order, "The dog-bane family".
- B. Veratrum compounds and derivatives.
- C. Phenotrophic and ataraxic agents.
- D. Dimallonyl urea compounds — the barbituric acid salts.
- E. Thiocyanate compounds.

2. Ganglion Blockage Agents:

- A. Quaternary ammonium compounds, such as hexamethonium chloride.
- B. Pentamethylene compounds, such as pentolinum tartrate.
- C. Chlorisondamine salts, such as Ecolid.
- D. Tolazoline preparations, such as prisco-line.

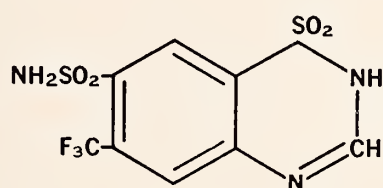
3. Splanchnicectomy, such as Smithwick operation.

Using a combination of drugs may help to hold down undesirable side effects, since each can be given in smaller dosages.

205 Walnut Avenue, San Diego, California.

The rationale for the use of a combination capsule-shaped tablet containing 400 mg. of flumethiazide, 50 mg. of rauwolfia serpentina whole root, and 400 mg. of potassium chloride is basically sound (Flumethiazide is the trifluoromethyl analog of chlorthiazide — Fig. 1).

FIG. 1



Flumethiazide

The exact dosage of rauwolfia may vary slightly from patient to patient but, in general, 50 mg. three or four times daily should give maximum anti-hypertensive and sedative effect without toxic results.(1) For the average ambulatory patient Wilkins(2) recommends rauwolfia, veratrum, and chlorthiazide in combination.

Most anti-hypertensive drugs, particularly rauwolfia and hydralazine, cause retention of fluid. Retention of water and electrolytes, especially sodium, may defeat the original aim of therapy. Benefits from Kempner-type diets appear to be directly related to reduction of body sodium levels.

About 40 per cent of patients taking chlorthiazide continuously, for periods of more than one week, will have lowered serum potassium levels and in about half of these potassium levels may be reduced below normal. (3.5 meg. per liter).

Diuresis from increased sodium and chloride excretion in patients with hypertension who were given flumethiazide was reported by Ford and his co-workers. Flumethiazide appears to have about the same natriuretic(3,4,5) activity as chlorthiazide but potassium losses are less.

Reports of good results from the use of the whole root of rauwolfia serpentina for long periods — some as long as four years without interruption — have been described by Doffermyre(6) and co-workers, Stuart(7), Cohen(8), and others.

Each of 38 patients in a single private practice was given a prescription of one hundred capsule-shaped tablets containing 50 mg. of rauwolfia serpentina whole root, 400 mg. of flumethiazide and 400 mg. of potassium chloride. All patients had shown persistent elevations of systolic and diastolic blood pressure levels on repeated examinations. Patients were instructed to take one tablet after meals until re-examination at 30-day intervals. Most patients cooperated well but almost all omitted a few doses. Previous therapy was discontinued except in cases of diabetes, cardiac arrhythmia requiring digitalis or quinidine, and simple medication for hay fever, constipation or painful joints. Once control of hypertension was established, dosage was reduced to one or two tablets daily. Usually this took from one to three months.

The patients were all adult Caucasians. Seven were men between 35 and 73 years of age, and 31 were women between 35 and 87. (One of the women did not take the drug and she was therefore excluded from the series). Data on blood pressure and body weight before and after treatment are shown in Table 1. No specific instructions for diet were given except in obese or diabetic patients.

ANALYSIS

Analysis of results obtained suggested that loss of weight (perhaps owing to sodium depletion) and relief of hypertension went hand in hand. Relief of symptoms of hypertension such as headache, impaired vision and precordial pain usually followed soon after the reduction of hypertension. A few patients reported no particular change, and a few had been relatively comfortable before therapy was begun.

The diabetic patients were all on appropriate dietary restriction or were taking insulin or anti-diabetic drugs. No significant variations occurred in the blood sugar levels, and no reactions attributable to the therapy for hypertension were reported. The blood chemical contents of patients with azotemia improved only slightly or remained unchanged.

Unfavorable side effects were few — drowsiness in one man and mild nocturnal leg cramps in two women. The man stopped taking rauwolfia and resumed phenobarbital and chlorthiazide which he had taken before. Quinine sulphate, 0.3 gm. at bedtime, relieved the nocturnal leg cramps in the women.

Original Articles

No gastrointestinal reaction were observed or reported and no nasal stuffiness occurred. Relief of anxiety and apprehension is not easy to measure accurately but most patients appeared more calm and relaxed when taking three doses of the medicine daily (a total of 150 mg. whole root or rauwolfia serpentina). This tranquility was fairly well maintained after reduction of dosage to once or twice daily. Empathy engendered by a sympathetic interested physician may have contributed to this amelioration.

All patients who took the prescribed drug regularly obtained reasonable reductions in hypertension, and symptomatic relief could be predicted with considerable accuracy. One woman patient was seen rather regularly and was encouraged to help herself, but for unknown reasons took almost none of the prescribed drug. Her blood pressure was 188 millimeters of mercury systolic and 96 millimeters diastolic when first examined. At the end of three months these levels had risen to 226 millimeters and 98 millimeters respectively.

T A B L E I
BLOOD PRESSURE AND BODY WEIGHT OF 37 PATIENTS BEFORE AND AFTER TREATMENT
FEMALES *

BEFORE Rx	WT.	AFTER Rx.	WT.	COMMENTS	CONCOMITANT CONDITIONS
220/116	163	136/80	158	Angina relieved	
160/80	138	122/80	132	Mitral valvulitis	
198/96	128	148/90	126	Angina relieved	
212/130	176	180/92	177	Headaches relieved	
204/100	159	150/90	160	Improved greatly	
200/100	98	158/90	100	Claudication improved	Diabetes mellitus
202/98	108	146/82	99	Right hemiplegia improved	Diabetes mellitus
212/98	107	146/88	94	Edema improved	Mild myxedema
162/96	122	124/82	125	No symptoms	
166/96	158	140/80	145	Edema relieved	Diabetes mellitus
212/100	113	190/92	115	Headache improved	Severe nephritis
178/100	114	122/80	106	Edema improved	
176/100	146	144/80	146	Vision improved	
212/108	114	140/80	124	Headaches ceased	
216/112	165	140/88	161	Left hemiplegia	Diabetes mellitus
220/110	181	130/82	180	Electrocardiogram improved	
240/136	144	142/96	142	Vision improved	
214/100	155	144/82	145	Headaches improved	Central nervous system syphilis
210/100	148	148/86	145	Asthma unchanged	Severe asthma
188/88	172	116/80	170	No change	Large nodular goiter
166/98	140	142/90	136	Edema less	
224/112	142	160/100	132	Right hemiplegia	Diabetes mellitus
196/104	152	160/80	142	Edema controlled	Severe nephritis
220/110	163	160/92	150	Headaches improved	
188/100	168	132/80	160	No change	
184/98	137	122/80	141	Angina improved	
196/100	146	138/84	145	No change	
170/106	142	166/90	140	No change	
198/114	165	136/82	160	Edema improved	
204/104	124	140/86	124	Headaches improved	
MALES					
196/112	159	142/90	151	Headaches improved	Nephrolithiasis
180/120	180	146/82	183	Vision improved	Diabetes mellitus
224/116	203	144/80	210	Angina improved	Severe gout
194/106	142	142/88	142	Angina improved	
196/108	149	166/92	148	No change	Splanchnicectomy
202/100	198	144/90	197	Headaches improved	Diabetes mellitus
206/104	156	160/94	155	Excessive drowsiness	

*N.B. One patient did not take the prescribed drug. When first examined her blood pressure was 196/104. Three months later it was 200/110.

SUMMARY

Thirty-eight adult white patients were given a combination of rauwolfia serpentina, flumethiazide and potassium chloride for arterial hypertension. Relief of symptoms and lowering of blood pressure occurred in patients who took the drug regularly. No significant unfavorable reactions were noted, and diabetic patients in the group (two men and five women) showed no conflict between the drugs prescribed for hypertension and those used concomitantly for diabetes.

Medication in this study was furnished by the

Squibb Institute for Medical Research as Rau-trax.

REFERENCES

1. Wilkins, R. W.: Anti-hypertensive Drugs, J.A.M.A. Vol. 167, No. 7 (June 14, 1958).
2. Wilkins, R. W.: New drugs for the treatment of hypertension. *Annals of Int. Med.* (1959) Vol. 50, No. 1, pp. 1-10.
3. Ford, R. V.: The clinical pharmacologic observations of flumethiazide as a diuretic and anti-hypertensive agent. *Monographs on Therapy* 4:27, 1959.
5. Rochelle, J. B. III; Montero, A. C. and Ford, R. V.: Observations on the use of flumethiazide in the treatment of edema. *Antibiot. Med. & Clin. Therapy* 6:267, 1959.
6. Doffermyre, L. R.; Byrd, C. W., and Lilly, W. H.: Rauwolfia serpentina in hypertension (four years' experience). *North Carolina M.J.* 19:430, 1958.
7. Stuart, S. E.: (A) Treatment of hypertension with Rauwolfia serpentina (Raudixin): Report of its use over a four year period. Report to the Squibb Institute for Medical Research, 1958; (B) *Clin. Res. Notes (Raudixin)* 1:1, 1958.
8. Cohen, B. M.: The treatment of arterial hypertension with Rauwolfia serpentina whole root for periods up to two years. *J. Med. Soc. New Jersey*, Vol. 56, p. 304 (June, 1959).

STATEWIDE CIVIL DEFENSE MEETING

On January 29, 1962 at 7:30 P.M., at Phoenix College Auditorium, a State-wide Medical Civil Defense Meeting will be held. Speakers will include Solomon Garb, M.D., Secretary for Medical Education for National Defense (M.E.N.D.), and author of twelve articles entitled "The Physician in Civil Defense"; and Cecil Coggins, M.D., Medical Director of California Civil Defense and nationally known expert on chemical and bacteriological warfare. This meeting is under the aegis of the Maricopa County Medical Society and in view of the subject matter and known ability of both speakers, all Arizona doctors of medicine are strongly urged to attend.

Earl J. Baker, M.D.
Chairman

Subcommittee on Civil Defense & Safety

Maintenance Of The Cardiovascular System In The Aged

Arthur Grollman, M.D., Ph.D., F.A.C.P.

One of the most challenging problems in medicine is briefly summarized by an expert who emphasizes the difficulty in differentiating the changes in the cardio-vascular system attributable to normal aging from those of a pathologic nature acquired by genetic, dietary and other environmental factors.

ALL TISSUES undergo atrophic and degenerative changes with senescence but in none are these changes so critical as in the cardiovascular system. This is not surprising when we consider the indispensability of this system for the maintenance of the organism. As a consequence we find that disorders of the cardiovascular system constitute the most commonly observed cause of disability and death. Even in so vital an organ as the brain, considerable damage may occur without compromising life; the indispensable kidneys may suffer loss of many thousands of their component nephrons without fatal consequences. An acute episode of myocardial insufficiency may, however, prove rapidly fatal and inadequate vascularization of any tissue resulting from local changes in the blood vessels is accompanied almost invariably by dysfunction of the affected area.

The obvious frequency of cardiovascular disease as a cause of disability and death has focused attention on means whereby these may be mitigated or perhaps even prevented. Unfortunately, many of the recommendations made are of unproven efficacy. In fact, the postulated causes of the vascular changes which are responsible for the most prevalent forms of cardiovascular insufficiency have not been established with certainty. Undoubtedly many factors in addition to the intrinsic changes which constitute the aging process may play a part in the pathogenesis particularly of coronary atherosclerosis, the most serious and common of this group of disorders.

Presented at the Symposium on Medical and Surgical Problems in Old Folks, The Hotel Westward Ho, Phoenix, Arizona, March 18, 1961.

Professor and Chairman, The Department of Experimental Medicine, The University of Texas Southwestern Medical School.

ALTERATIONS IN THE CARDIOVASCULAR SYSTEM WITH AGE

The heart shares with other muscles a gradual decrease in its structural integrity. Atrophy of the individual fibers, increase in elastic tissue and a conspicuous increase in pigment occur with advancing age.(1) The blood supply to the heart is also compromised by the arteriosclerotic changes occurring in the coronary arteries. Many uncertainties still becloud the question as to the role which such factors as diet, the cholesterol level of the blood, physical exertion, smoking and other environmental factors play in accounting for the apparent increase in the incidence of myocardial infarction during recent decades in certain areas of the world including our own country.(5) Until these problems are settled conclusively any suggestive prophylactic measures must be considered as tentative and of questionable efficacy.

ALTERATIONS IN BLOOD PRESSURE WITH AGE

A rise in arterial blood-pressure is such a common accompaniment of the aging process that many have considered it to be a normal phenomenon. Such a view, however, is misleading. It represents always an abnormal condition, albeit perhaps an inevitable one, which may be due either to a specific disorder designated as hypertensive cardiovascular disease or a reflection of the altered hemodynamic state induced by loss of elasticity of the blood vessels (arteriosclerosis) (4). Confusion of these basically different disturbances is common. The only thing they have in common is that they are both accompanied by a rise in systolic arterial blood pressure and consequently referred to indis-

criminally as "hypertension." The two conditions are often present together, each tending to aggravate the other as a vicious circle which further confounds the problem of their evaluation and management.(3)

TREATMENT

Treatment of cardiovascular disturbances in the older patient does not differ basically from that used for comparable conditions in the younger individual, but must always take into consideration possible adverse reactions incidental to alterations due to the aging process. For example, the use of the presently available antihypertensive drugs may precipitate coronary, cerebral or renal insufficiency by reducing the blood pressure in these critical areas.(3) This is particularly apt to occur in patients with systolic hypertension secondary to generalized atherosclerosis who are treated vigorously in the mistaken belief that they are suffering from hypertensive disease.

Certain disorders including diabetes mellitus, obesity, and hypertensive disease are generally accepted as accelerating the course of atherosclerosis. Their control accordingly constitutes an important means of mitigating the onset of atherosclerosis with its complications. The ad-

vocacy of a low caloric diet, moderate exercise and the avoidance of such factors as excessive smoking are obvious measures which should be utilized as prophylaxis. The available evidence suggests the advisability also of consuming a diet which is low in saturated fats and which contains a reasonable amount of polyunsaturated fatty acids. The use of drugs which induce a hypocholesterolemic effect must be considered as still in an experimental state of evaluation insofar as their ultimate therapeutic value is concerned.

The universality with which disease of the cardiovascular system afflicts the human species renders it difficult for the physician to view objectively and without personal bias. This is particularly true in a field in which criteria of therapeutic effectiveness(5) as well as pathogenesis are so difficult to evaluate.

REFERENCES

1. Andrew, W.: Anatomic Changes with Age, in *The Older Patient*, Johnson, W. M., editor; New York, Paul B. Hoeber, 1960, Chap. 2.
2. Grollman, A.: Abnormalities in Blood Pressure Associated with Age, in *The Older Patient*, Johnson, W. M., editor; New York, Paul B. Hoeber, 1960, Chap. 13.
3. Grollman, A.: The relation of arteriolarsclerosis to hypertension as elucidated by studies on the nephrectomized dog, *J. Genontology*, 6:96, 1951.
4. Grollman, A.: *Pharmacology and Therapeutics*, 5th ed., Philadelphia, Lea & Febiger, 1962.
5. Spain, D. M.: Problems in the study of coronary atherosclerosis in population groups, *Annals N. Y. Acad. Sci.*, 84:816, 1960.

AMA GUIDES TO THE EVALUATION OF IMPAIRMENT

The American Medical Association announces the availability of the fourth in the series of "Guides to the Evaluation of Permanent Impairment" developed by the Committee on Medical Rating of Physical Impairment and authorized for publication by the AMA Board of Trustees. It is entitled, "Guides to the Evaluation of Permanent Impairment — Ear, Nose, Throat, and Related Structures."

This guide, like all the others in the series, has been designed primarily for use by physicians. The guides are also of interest to others concerned with the medical, administrative or judicial aspects of programs for the disabled. The other guides in the series are:

1. "A Guide to the Evaluation of Permanent Impairment of the Extremities and Back."
2. "Guides to the Evaluation of Permanent Impairment — The Visual System."
3. "Guides to the Evaluation of Permanent Impairment — The Cardio-vascular System."

Copies of these guides may be obtained upon written request to the Committee on Medical Rating of Physical Impairment, 535 North Dearborn Street, Chicago 10, Illinois.

The Return of the Wapiti to Arizona

A SALUTE TO ROBERT N. LOONEY,
PIONEER ARIZONA PHYSICIAN

Dry Gulch Jake

This is an interesting side light for hunters and doctors. This unusual work of Dr. Looney confirms the wide interest that the early pioneer physician had — not only in his patient, but also in state conservation. It is a strong encouragement to all of us to take a more active part in our community.

MANY MOONS past, the Spaniards began the transplant of Caucasian Homo sapiens, biped, to Arizona. About 150 years ago, elk roamed most of the United States, foothills, woods and plains, from sea level to mountain tops. Since the elk were native inhabitants, why, you inquire, did they disappear from Arizona? Well, the answer is, they disappeared in the same fashion as many of our other natural fauna. The greedy, thoughtless, rapacious slaughter by man decimated the Wapiti. Authorities differ in opinion as to when the native elk finally disappeared from the Territory of Arizona. In the 1870's they began to become scarce, but even during this time elk meat sold in the general stores in the high country for seven cents a pound.⁽¹⁾ The last native elk was recorded as killed near Mount Ord in 1898.⁽¹⁾ By then, about all that remained of the native species, Merriam elk, were a few skeletons which were found in the Mogollon Rim country. Doctor Looney, at the time Health Commissioner, but in active practice in Prescott, made the return of the Wapiti possible.

Dr. Robert Nelson Looney recently celebrated his ninety-first birth anniversary, and it was this pithy pioneer Prescott physician who authored and consummated the transplant of elk from the Yellowstone National Park to Northern Arizona. It may come as a surprise to some that objects other than arteries, nerves and skin were subject to transplant, lo these many years.

Another physician, Dr. Shore,⁽²⁾ reported in August 1912 on "Trapping and Shipping Elk," to Washington and Oregon. Dr. Looney studied

this article and quickly began to make arrangements for a similar transplant to Arizona.

Doctor Looney was appointed State Health Commissioner in 1912 and served until 1917. Copies of his letters during the negotiations for these elk are extremely interesting and they start August 14, 1912. A letter to Governor Hunt, outlines his plan.⁽³⁾ He had already begun to negotiate with people in Montana and with the Department of Interior for permission to ship the elk. He noted, in this letter to Governor Hunt, that the cost would be about five dollars a head for the service of capturing them in Gardner, Montana.

Dr. Looney corresponded with Mr. E. W. Nelson, head of the U. S. Biological Survey (now Fish and Wild Life Commission) and with the Boone and Crockett Club of New York (Teddy Roosevelt, first President). These people gave valuable assistance in suggesting how a game conservation law should be written, that a game refuge should be established, and they even offered to supply funds to help transplant the elk. Mr. H. Anderson, of Gardner, Montana, contracted to capture the elk. With the assistance of Senator Henry F. Ashurst, Dr. Looney made a trip to Washington with a petition to the U. S. Department of Interior and obtained a permit.

It was about this time that Mr. Mulford Windsor, Dr. Looney and Governor Hunt established themselves as a committee to supervise this undertaking. Governor Hunt and Dr. Looney each put up five hundred dollars, and, as we



FIGURE 1

Robert N. Looney, M.D. At his retirement from actual practice. (1952) Courtesy E. A. Born, M.D.

will see, this was not enough to complete the undertaking. The Elks Lodge of Arizona made this one of their projects and raised a considerable amount of money.

The elk were corralled near Gardner, Montana, by Mr. Anderson, and shipped by stock cars, arriving in Winslow, February 16, 1913. The actual number loaded was 86 head, although the Department of Interior authorized only 80 head. Anderson put in a few extra. According to Eldridge,(5) "they were shipped, double first class, traveling 24 hours and resting the same period, accompanied by a competent keeper the entire distance to Winslow, Arizona." The 86 head of elk were 4 grown cows, 14 bulls, and 68 yearling heifers. Of the entire head, four were lost, one enroute and three on the way to the corral at the R. C. Cresswell's summer camp at Cabin Draw. This is about 45 miles south of Winslow, Arizona, in the Sitgreaves National Forest. The elk were allowed to stay in the pens at the stock yards 12 days. They were then

loaded into 12 wagons which were under the supervision of 11 men using 24 horses and 1 saddle horse. On their way to the corral, in the Sitgreaves Forest, they encountered a blizzard on March 13, 1913. They camped the first night 25 miles south of Winslow. One of the men who made the trip stated that it began sleeting about 2:00 A.M., and by the time they started at five o'clock the next morning, the snow was a couple of inches deep. It continued to snow all during that day and it was with great difficulty that they got the wagons to the Cresswell Ranch.(5)

Dr. Looney wrote, April 23, 1913, "On arrival in Winslow, the elk were in fine condition. They were held at Winslow about one week and then hauled in crates, built on wagons, 50 miles distance and placed in a corral where they were fed and cared for until April first. In moving them from the corral at Winslow to the enclosure on the range, three head were lost by being trampled to death. The last I heard, two weeks

garden
Herd
Feb 19-1913

Dr. R. M. Looney

Dear Sir Just received some fine
news of your Bunch of elk just as
captured before sorting and classing
in different bunches I classed 50
head of 2 and 3 years old cows for West
all Big No small ones at all the hardest
Bunch I ever caught to handle well they
were all on the flight from start to
finish lost 6 out of 50 on car, shipped
80 yearlings to wash 1 died 80 to bring
and you see the condition they arrived
in. 50 head to Pennsylvania all yearlings
No loss West Bunch to Cal if yearlings
and two No loss so it goes to show
that yearlings is far the best to ship
Hoping you success with them and
Thanking you for your kind and

FIGURE 2

Part of letter from H. Anderson after capture of elk requested by Dr. Looney.

ago, they were staying together and seemed to be doing well on the open range.”(3)

In September, 1914, the State Game Warden, G. M. Willard, gave the condition of the new herd as follows: “According to reports, the herd must have scattered badly during the summer and fall of 1913; but nevertheless, 53 head of them got back and wintered about 15 miles further in the mountains than where they were originally liberated. An old trapper who had considerable experience with elk in the Northern States, and who saw these 53 head during the months of March and April of 1914, was very emphatic in the declaration that they were by long odds the finest herd of elk he had ever looked upon. Reports indicate that at least four calves were born to the herd for the year 1913. “Not a bad showing, since there were only 6 or 8 head old enough to calve.”

The final fund account by Windsor stated that the cost of capturing, transporting to Winslow, hay and supplies, crates and wagons to Cabin Draw, came to \$2125.57. H. Anderson for capturing and loading elk \$400.00; and A.T. & S.F. RR Company, freight and feed, \$807.20; all together about \$265 per head(3).

There were “small additional shipments of elk in the late 1920’s from Yellowstone and these were released in the San Francisco Mountains near Flagstaff, Bill Williams Mountain near Wil-

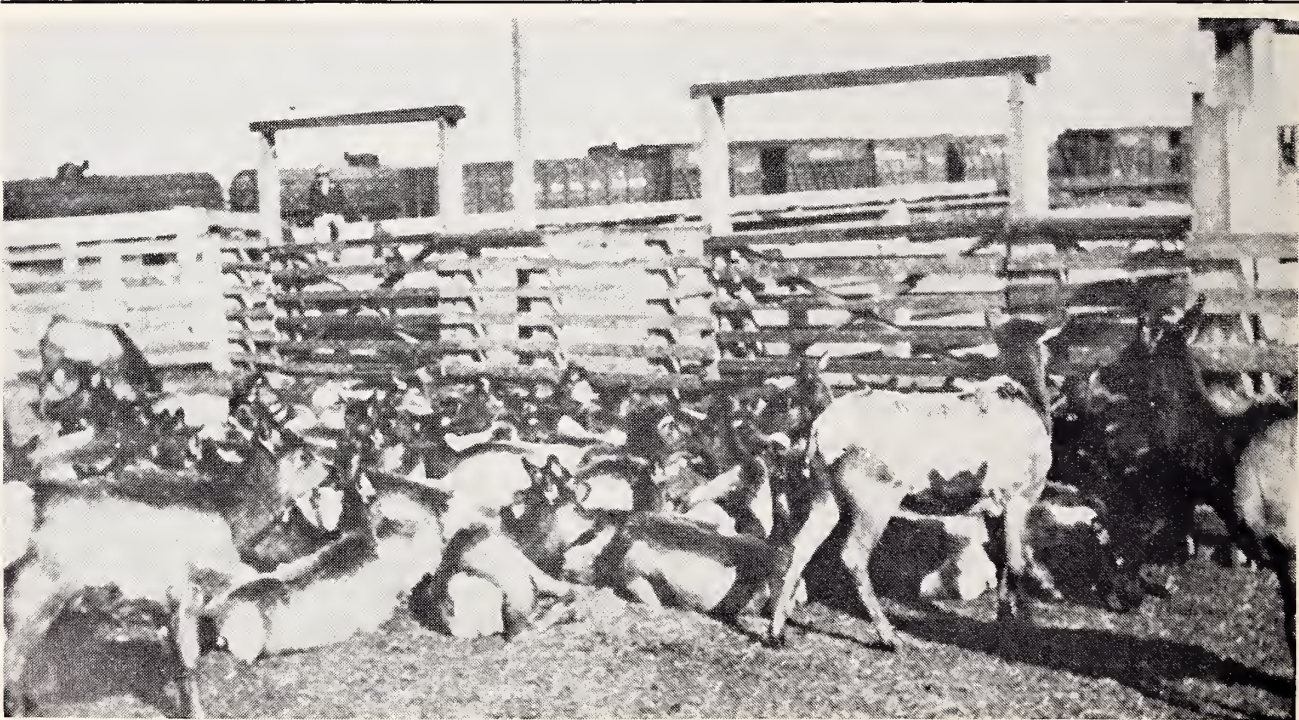


FIGURE 3

Elk in stockyards at Winslow. February 1913. (Courtesy O. C. Eldridge)



FIGURE 4

One of original freight wagons used to transport elk to Cabin Draw. Courtesy O. C. Eldridge.

liams, Captain Mountain on the San Carlos Indian Reservation, and Graham Mountains in Graham County. On February 12, 1927, 22 head were released at Campbell Blue, south of Alpine, on the Coronado Trail, and an additional 30 head were released about this time in the Hualpai Mountains, southeast of Kingman.”(1)

This comprises the total elk transplants back to Arizona, probably less than one hundred and forty animals.

The first authorized elk hunt was in 1930, at which time 249 permits were sold. There were 249 hunters afield and 85 elk were harvested or a 34.1% hunter success.(6)

It is further reported that about 12,400 elk have been harvested between 1936 and 1960, from these original transplants, the first and most important engineered by Dr. Looney. The Game and Fish Department states that mountain lions and poachers have not submitted a return, so that the total number of elk harvested is not

exactly known.

This is a brief account of one of the many accomplishments of this fabulous pioneer physician, Doctor Robert Looney. Those of you who account yourselves sportsmen, and who will this season take yourselves to the high country in search of the elusive elk, might well pause and consider the energy and imagination that was needed to bring the Wapiti back to Arizona. Better than that, why don't you drop him a line and note of appreciation.

(J. W. Kennedy, M.D.)

REFERENCES

- (1) Kartchner, K. C.: Elk Transplanting in Arizona, Proc 20th. Ann. Conf. Western Assoc. of State Game and Fish Comm., pp. 145-149, 1950.
- (2) Shore, W. B.: Trapping and shipping Elk, Outdoor Life XXX No. 2, pp. 96-104, August 1912.
- (3) Looney, Robert N.: Historical Archives, Arizona Department of Health, Phoenix, 1912-13.
- (4) Swank, Wendell G.: Bull versus Hunters Choice, the History of Elk Management in Arizona, Arizona Game and Fish Department, 1954.
- (5) Eldridge, O. C.: How the First Elk Herd was Brought to Arizona, BPOE Elks No. 256, Meteor Winslow, Arizona, October, 1955. (The most complete and factual description of this event.)
- (6) Bulletin, Game Management Division, Arizona Game and Fish Dept., Recommendations on 1961-1962 Hunting Seasons.

*An Ethical Professional
Service for Your Patients
Founded 1936*



A DOCTOR'S RESOLUTION:

I RESOLVE that during the coming year I will suggest the Budget Plan for Health to my patients no matter what their income status. My past experience has shown that both low and high income patients prefer to pay their bills in monthly payments. The Budget Plan for Health gets me my money quickly, cutting down billing expense . . . collection expense and provides a means for my patients to meet their obligation to me through monthly payments at bank rate of interest. Through past experience, I have learned that my patients appreciate my thoughtfulness in suggesting the Budget Plan for Health as it provides an easy way for them to pay me without putting a burden on their budget. I know, too, that when they go to M & D for their loan they will be handled the way I would handle them . . . courteously, sympathetically.

HAVING RESOLVED to suggest the Budget Plan for Health to my patients, I know that during the coming year my practice will grow because A PAID PATIENT IS A SATISFIED PATIENT AND MY BEST PRACTICE BUILDER .

I. M. KINDLY, M.D.

Medical & Dental Finance Bureau

First Street at Willetta	•	Phoenix	•	258-7755
31 North Tucson Boulevard	•	Tucson	•	MA 3-9421
456 North Country Club Drive	•	Mesa	•	WO 4-5668

"How do
you feel
lately, Mrs. K?"

*"Well, Doctor, some customers still
'get on my nerves'... but somehow this doesn't bother me
as much... I feel better now and people seem easier to
get along with..."* "Feel sleepy?" *"No, nothing like that."*

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TREPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

this could be your "anxiety patient" on

TREPIDONE[®]

MEPHENOXALONE LEDERLE

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York




Theragran[®]

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesses who need therapeutic vitamin support. Each Theragran supplies the essential vitamins in truly therapeutic amounts:

Vitamin A	25,000 U.S.P. Units
Vitamin D	1,000 U.S.P. Units
Thiamine Mononitrate	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Vitamin C	200 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B ₁₂	5 mcg.

SQUIBB  *Squibb Quality—the Priceless Ingredient*
'Theragran'® is a Squibb trademark

●● nutrition...present as a modifying or complicating factor in nearly every illness or disease state ●●¹

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases “Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease.”²

2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis “It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . .”³

3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.⁴ Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.⁵

4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases “Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult.”⁶

6. Overholser, W., and Fong, T. C. C. In Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.⁷

7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported In: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.⁸ “Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes.”⁹

8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.



sedative-
enhanced
analgesia

for more satisfactory relief of anxiety-aggravated pain

PHENAPHEN[®]

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.¹
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.²

Each PHENAPHEN capsule contains:

Also available:

Acetylsalicylic acid (2½ gr.) 162 mg.
Phenacetin (3 gr.) 194 mg.
Phenobarbital (¼ gr.) 16.2 mg.
Hyoscyamine sulfate 0.031 mg.

PHENAPHEN with CODEINE PHOSPHATE
¼ GR. (16.2 mg.) Phenaphen No. 2
PHENAPHEN with CODEINE PHOSPHATE
½ GR. (32.4 mg.) Phenaphen No. 3
PHENAPHEN with CODEINE PHOSPHATE
1 GR. (64.8 mg.) Phenaphen No. 4

Bottles of 100 and 500 capsules.

1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity... seeking tomorrow's with persistence.



A Milestone

Leslie B. Smith, M.D.



Leslie B. Smith, M.D.

The DOCTORS of Arizona (represented by officers and committee members), EMPLOYEES (represented by national regional and local union officials) and OWNER-MANAGEMENT (represented by executives of a large mining corporation), convened at the conference table for almost four hours November 19, 1961.

The purpose of this meeting was to discuss the way and means of assuring the broadest distribution of the highest quality of medical care.

Much of our discussion centered around some of the vulnerable provisions of established prepayment medical care plans. The items considered were over-utilization, the type and quantity of services requested by the patients, the needless services provided by some doctors and the excessive charges of a few doctors. The over-utilization of hospital care is the greatest of the threats to the solvency of the pre-payment plans.

It was proposed that over-utilization might be reduced by more thorough education of the recipients as to the purpose and provisions of health care plans. However, it was mutually

agreed that because human nature, being as it is, the "cost-me-no-more-anyway" attitude of some, it is virtually impossible to prevent attempts to over-utilize these "free" medical services.

The union officials and those of management were firm in their opinions that doctors must assume the major role in the prevention of abuses because they are the only ones who can determine the medical needs, and that only doctors can confirm the necessity for medical care, diagnostic and surgical procedures either before or after the services are rendered.

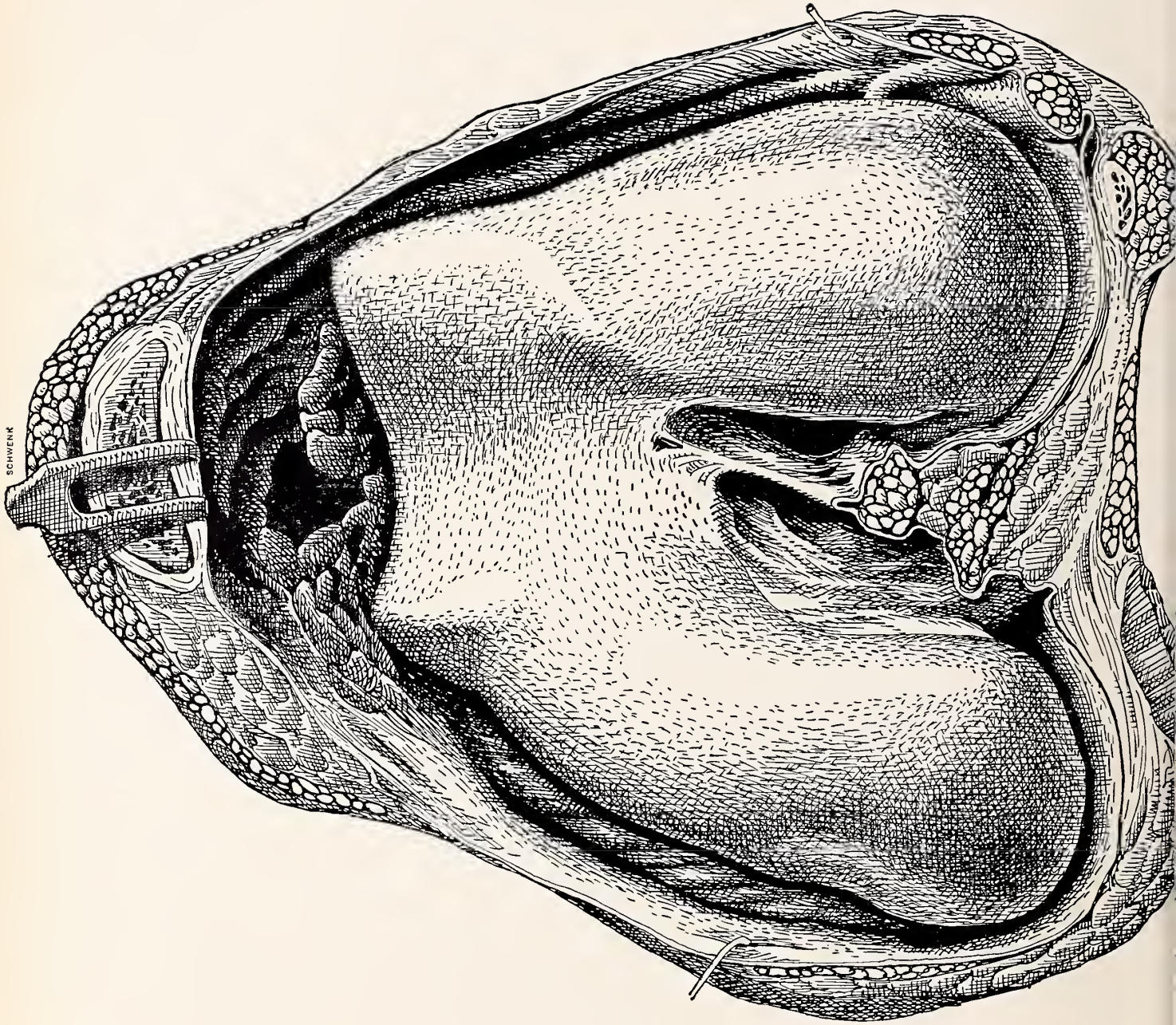
It was encouraging to hear our visitors state that there is no need for any new or additional systems for the administration of medical care because the available mechanisms are adequate. However, there is need for a more effective use of these organizations and they asked that we help accomplish better controls.

Our newly met friends are desirous of maintaining the privilege of the free choice of physicians. However, they emphasize that we must be more diligent in our protection of this freedom.

This precedential meeting of the three (labor, management, medicine) marks for us the beginning of a procedural relationship which will further implement the extension of the highest quality of medical care with due respect to the social, economic and moral rights of everyone.

LESLIE B. SMITH, M.D.

President



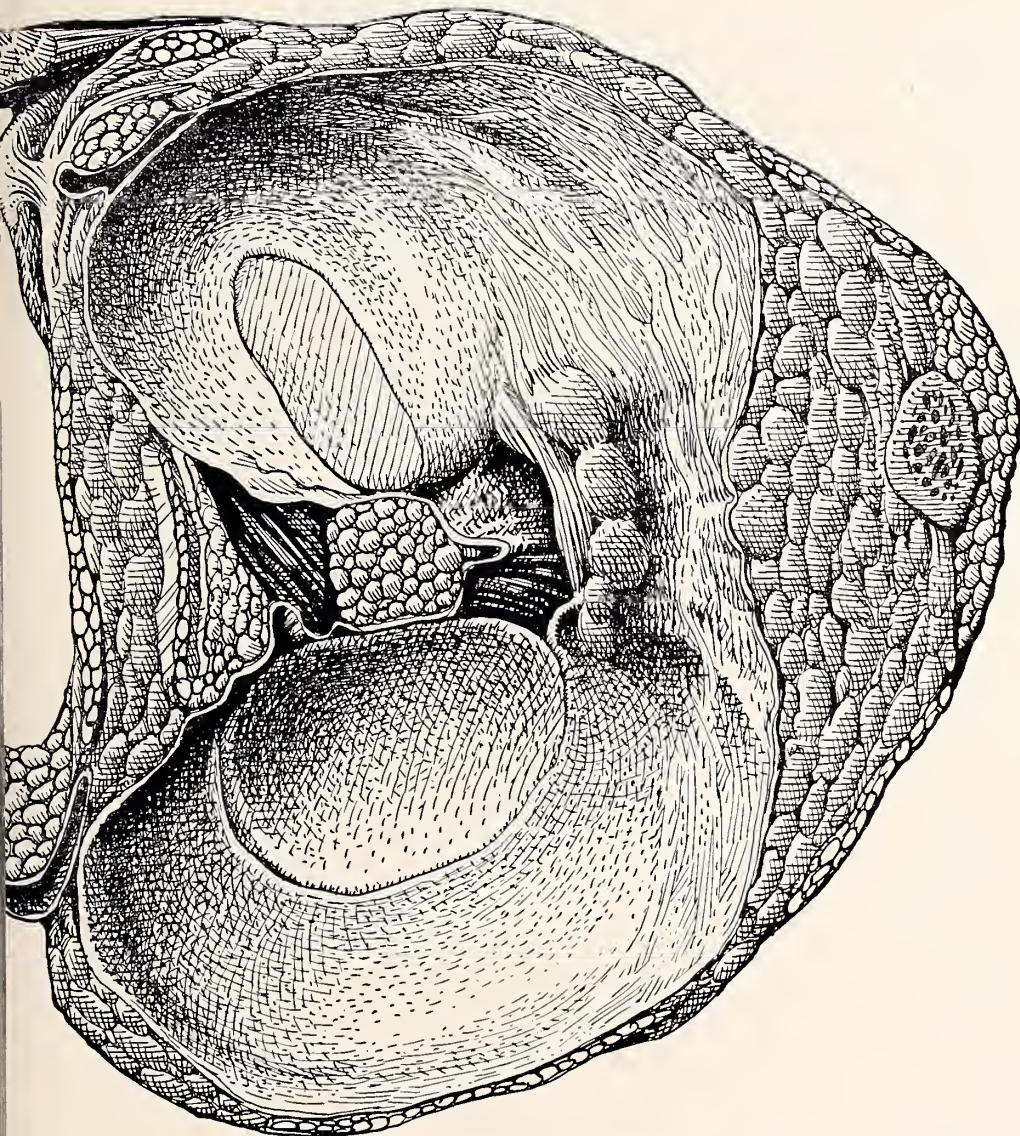
because patients are more than arthritic joints...
controlling inflammatory symptoms is frequently not enough

Even cortisone, with its severe hormonal reactions, can effectively control inflammatory and rheumatoid symptoms. But a patient is more than the sum of his parts — and the joint is only part of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy

Aristocort[®]

Triamcinolone Lederle



(Knee Joint, Left: distal end of femur; Right: proximal end of tibia)

ARISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased appetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional disturbance and insomnia.

ARISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — without the undesirable psychic stimulation and voracious appetite.

Applied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY • Pearl River, New York

NEW
comprehensive
digestant
with the
most
potent
enzyme
available
for
digestion of



—also unsurpassed potency for digestion of starch, protein and cellulose

- the *only* digestant with Lipancreatin,* proven superior to Pancreatin N.F.
- the *only* digestant with fat-splitting lipase activity 12 times as great as that of Pancreatin N.F.

When the question is digestion because of your patient's inability to handle fat, starch, protein or cellulose, you can provide dependable relief with COTAZYM-B, which contains the essential pancreatic enzymes lipase, trypsin and amylase, plus bile salts and cellulase. A daily dose of 6 COTAZYM-B tablets is sufficient to emulsify and digest 50 Gm. of dietary fat, and to digest all of the protein and starch in a typical diet (100 Gm. protein, 250 Gm. starch) and 480 mg. cellulose.

Dosage: 1 or 2 tablets with water just before each meal.

Supply: Bottles of 48 tablets.

Write for samples and comprehensive literature.

NEW **Cotazym-B**
Lipancreatin Bile Salts Cellulase

ORGANON INC., West Orange, New Jersey



**The Significance of Lipancreatin (Pancreatic Enzymes Concentrated 'Organon')*

A product of original Organon research, lipancreatin provides for the first time in digestant preparations a known, constant amount of fat-digesting lipase in addition to trypsin and amylase. It surpasses in assayable digestive activity all presently available pancreatin preparations.

Laboratory Cost — Clinical Judgment

A new venture in educating medical students at Jefferson Medical College regarding the cost factor in diagnosis is summarized in a press release from the American Hospital Association. It can be hoped that other medical schools may offer comparable orientation programs so that newly pledged doctors can be spared the shock of discovering they have broken the bank arriving at a diagnosis. The free-for-all, all-for-free atmosphere of the heavily endowed medical center does not prevail throughout the land, and in our community hospitals either the patient or his insurer must pay the bill for laboratory tests. All of us practicing modern medicine realize how soon the sum can become virtually staggering.

The cost factor can be met in some degree by the utilization of newer, less expensive, mass production techniques in our hospital laboratories. Certainly the physician who recognizes a family history of tuberculosis or diabetes mellitus should not have to fret about depriving his patient of exclusion tests because of cost. Clinical

pathologists might well review the opportunities for package pricing which would include seriative tests such as daily prothrombin times and also "battery" tests for liver function. Here would be a fruitful field of conference between pathologist and clinician, and the fellow who pays the bill could really savor the fruit.

If the face of the coin bears, "It is Smart to be Thrifty," the advice on the reverse must read, "It Ain't Necessarily So." It is not smart to muff a diagnosis of pheochromocytoma, or primary aldosteronism, or unilateral renal ischemia because the tests are costly. Any dollar wise lawyer will be happy to point out how penny foolish the physician was. Shall we then submit all hypertensive patients to the galaxy of expensive diagnostic procedures? Comes the revolution, this silly question will get its silly answer: "Why Not?" . . . Meanwhile, some of that precious prescience called clinical judgment can serve quite well.

CLARENCE L. ROBBINS, M.D.

ARIZONA MEDICINE

ARIZONA MEDICINE

Darwin W. Neubauer, M.D. Editor
Margaret McMahon Secretary to the Editor
720 N. Country Club Rd., Tucson, Arizona

ASSISTANT EDITORS

Robert Carpenter Arizona Medical Association Reports
Richard L. Dexter, M.D.
Joe E. Ehrlich, M.D.
Mayer Hyman, M.D.
Clarence L. Robbins, M.D.
Preston J. Taylor, M.D. Original Articles
Juan E. Fonseca, M.D.
Augusto Ortiz, M.D. Medical Society of the
Byron Browder United States and Mexico
Lindsay E. Beaton, M.D.
R. Lee Foster, M.D.
William B. McGrath, M.D.
Leslie B. Smith, M.D. Editorial Section
Howell S. Randolph, M.D. In Memoriam
Andre J. Bruwer, M.D. Reprints
John W. Kennedy, M.D.
Paul J. Matte, Jr., M.D. Historical Section

ASSOCIATE EDITORS

Charles W. Elkins, M.D. Neurosurgery
A. K. Hansen, M.D. Ophthalmology
Louis G. Jekel, M.D. Dermatology
Robert Lacoec, M.D. Ob-Gyn.
C. Thomas Read, M.D. Chest Surgery
Wallace A. Reed, M.D. Medical Economics
Gerd Schloss, M.D. Pathology
Paul L. Singer, M.D. Genito-Urinary
Hugh H. Smith, M.D. Public Health
Alvin L. Swenson, M.D. Orthopedics
William G. Ure, M.D. Tuberculosis
Roger F. White, M.D. Pediatrics

ADVERTISING AND SUBSCRIPTION OFFICES

Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

"The material in this journal is not copyrighted. We would like to ask that anyone using material from it note the previous publication in ARIZONA MEDICINE."

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accept for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

Editorials of *Arizona Medicine* are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

PHONE-CALL COERCION

The ABC's of narcotics classification and their use should be known by all practicing physicians. The bureau of narcotics regulations provide for classification of narcotic drugs and preparations in four groups: Class A, B, X and M. Class A includes those pure drugs, their compounds and preparations which can be dispensed only by a written, signed prescription. In this class fall old standbys: Codeine, morphine, opium, methadone and meperidine (Demerol) among others. The responsibility for compliance rests on the pharmacist. Our pharmaceutical colleagues are often hard-pressed in their desire to accommodate our requests and our patients' needs via the phone call route. Nevertheless, we should take note of the gravity of this misdeed and as individuals not let ourselves become participants in such activity. Although, legally, the burden may not be ours, our profession gains stature in the eyes of all paramedical associates when we assist them in maintaining their legal responsibilities.

Expressed simply (and better) by T. S. Eliot:
The last temptation is the greatest treason,
To do the right deed for the wrong reason.

C. W. KURTZ, M.D.

DRUG SAMPLES

Self-explanatory and timely is a reminder by George P. Larrick, commissioner of food and drugs, U.S. Department of Health, Education and Welfare: "Very serious harm . . . may result from the improper handling of physicians' samples by untrained and irresponsible people. Manufacturers, doctors, detail men and druggists are urged to take immediate steps to control the handling of physicians' samples so that they will be used for their intended purpose. Any other purpose is contrary to the provisions of the Federal Food, Drug and Cosmetic Act and to sound professional ethics."

Samples of potent drugs do arrive in unsolicited abundance. In their possession, use or disposal the recipient physician probably cannot and practically should not disclaim ordinary responsibility.

WILLIAM B. McGRATH, M.D.

EDITOR'S NOTES

(Following notes are taken from "Some Complexities and Perplexities of Pharmaceutical Industry Relationships" by Eugene N. Beesley, president of Eli Lilly and Company and which appeared in the Journal of the Indiana State Medical Association).

"There can be no quarrel with the rightness of the desire to wipe misery, poverty, and disease from the face of the earth, but if supercharged criticism of practices and policies which have made for progress in medical care leads to unwise government intervention and controls, the interests of the public will not be served. To prevent such from happening is one of our basic problems at this time."

* * *

"The observation can properly be made that the general public does not adequately understand the economics of consumer product distribution in any field. This is especially true for pharmaceuticals and biologicals. The public does not appreciate the fact that, if adequate supplies of fresh stocks of medicines are to be available in every corner drug store and hospital across the land, the cost of fast and convenient distribution through professional channels must be met. I doubt very much that most people realize that about half of each dollar which they spend at the prescription counter goes for the handling of their medicine — *not* for the making of it."

* * *

"Our critics have blithely said that the U. S. Pharmacopoeia and the Food and Drug Administration are all that the public needs to guarantee the potency, safety and purity of its medicines. Without in any way impugning the Food and Drug Administration and its conscientious handling of its responsibilities, and without in any way discounting the value of the U. S. Pharmacopoeia, I do not hesitate to make this observation: Quality cannot be *inspected* into a product; it must be *built* into the product at every step of the manufacturing process."

* * *

(Following notes are taken from Fortune — October 1961, "A Simple Error in Logic," by John and Sylvia Jewkes)

"No estimate made before 1948 had set the annual cost to the exchequer of the National Health Service above about 170 million pounds. The actual cost, at an annual rate, came out 377

million pounds for 1948-49 and 433 million pounds for 1949-50."

* * *

"Certainly the effects on the part of successive governments to keep expenditures within what were deemed to be proper bounds, and at the same time avoid political unpopularity, have had some unfortunate long-period consequences — such as the virtual ban on the building of new hospitals for a decade, the abandonment of the plans for the building of health centers, the delays in increasing the remuneration of doctors as the cost of living rose, the relative starving of medical research, and the discouragement of progress in certain forms of medical education, particularly in the size and number of dental schools."

* * *

". . . price curbs have been imposed upon manufacturers of pharmaceutical products to the point where research may have been discouraged. Meanwhile, the British people have been purchasing drugs on a large and increasing scale from their own pockets. In 1959 the cost of privately purchased pharmaceutical products was larger than that of drugs provided under the National Health Service. No British government, therefore, has met the full demand for free medical services."

* * *

". . . private expenditure grows because many people are ready to make sacrifices in other directions in order to enjoy prompt hospital and specialist treatment, free choice of consultant, and private accommodation.

"If, then, there are considerable numbers of people who find the service so inadequate that they are prepared to make the double sacrifice of paying both for National Health Service facilities they do not use, and for the private facilities they do, it is not unreasonable to assume that there are still larger numbers of people who are dissatisfied with the National Health Service but are not prepared to make the necessary sacrifices to improve upon it. The presence of the free service induces them to tolerate less adequate medical facilities than they might have bought in a free market."

* * *

"The costs of medical services in Switzerland are met from three sources:

(a) A large group of health-insurance associations.

(b) The various governments of Switzerland — federal, cantonal, and communal — provide considerable subsidies to the medical system. The subsidy from the federal government is mainly devoted to preventive medicine.

(c) Payments made by private individuals.

When the medical systems of Switzerland and Great Britain are compared, the following results emerge:

(1) The number of doctors per 1,000 of the population is now probably slightly larger and has probably been increasing rather more rapidly in Switzerland than in Great Britain.

(2) Since 1948, the Swiss have engaged in an extremely ambitious program of hospital renewal and modernization. Per head of the population, their investment is four times greater than the comparable outlay of the British National Health Service in the same period. Waiting lists in Swiss hospitals are virtually nonexistent.

There is a very wide agreement that Swiss medicine and medical care enjoy a high reputation throughout the world. Many patients travel from other countries to receive treatment there. The medical schools attract many foreign students; in recent years about 40 per cent of medical students in Swiss establishments have come from abroad. Visiting experts in numbers study the design and organization of their new hospitals. Their pharmaceutical industry has produced some outstanding new products in recent years.

In these circumstances, it would be idle to deny that what the British set out to achieve with a centralized state organization providing free medical services can be attained under a highly decentralized system with an independent medical profession in which voluntary insurance and private payments provide for the greater part of the costs and the national government intervenes only at certain strategic points."

* * *

Conversation with several dozen New Yorkers — including talkative cab drivers and waiters, salespeople in several kinds of stores, and a sprinkling of industry executives — revealed that this tiny sampling of the public felt that it was no more than right for the medical profession to clean its own house.

Several of the more articulate, in fact, declared that, in view of Medicine's obvious willingness

Editorials

to let the public know how that the profession has its disciplinary problems, they had every confidence that the nation's physicians would do a good job of cleaning house — without prodding by government or recriminations by Congressional committees.

Few as they are, these comments do indicate, it seems to us, that public awareness of the fact that Medicine is determined itself to drive out any and all abuses may be sufficient to ward off . . . or at least minimize . . . the exaggerations of a Kefauver investigation — of the type which already have gravely injured the American pharmaceutical industry.

We honestly believe that, if you come clean with the public . . . if you take the public into your confidence . . . if you tell them what you're trying to do in their own best interests . . . the muckrakers will find it difficult to gain wide acceptance of any calumnies they might seek to level against the medical profession.

New Medical Materia, August 1961

* * *

AMA — June Convention — 3,268 individuals, 375 scientific exhibits, 55 motion pictures, 19 television shows, plus 58 luncheons, dinners, and fraternal gatherings.

"If we recognize the social character of taxation, insurance, philanthropy, and industry," writes Dr. Milton Roemer of Cornell University, 'probably nearly 50 per cent of the nation's annual investment in health is derived from social sources'."

Fortune, August 1961

* * *

Nobody several years ago survived the series of illnesses that I have had. If somebody tells me that the medicines I carry are expensive I must laugh, particularly when I read circulars advertising graves. I would rather pay for a medicine than a grave any day.

George E. Sokolsky, Columnist
King Features Syndicate

* * *

"Dr. Alan Gregg, who was vice president of the Rockefeller Foundation, once remarked in a lecture at Columbia University that 'the table of life that traditionally has rested on the tripod of food, clothing, and shelter can now rest more securely and reasonably on four legs: food, clothing, shelter and medical care'."

Fortune, August 1961

"The American most vulnerable to suicide is a white Protestant professional man over fifty who has some money or a good income, is widowed or divorced, has no children, and lives alone in a hotel in a large city on the West Coast."

"Traitor Within: Our Suicide Problem,"

E. R. Ellis & G. N. Allen

* * *

"Of a total of 227,000 doctors in the U.S., only 82,000, or 36 per cent, are in private general practice — as against 112,000, or 72 per cent, in private general practice in 1931.

Fortune, August 1961

* * *

According to the most recent statistics, 300 or more people attempt suicide each day. Of these, 50 are successful. Other interesting statistics show that three or four times as many men as women commit suicide; more whites than Negroes are suicidal; men are more successful than women in their suicide attempts; and spring is the suicide season — bearing out T. S. Eliot's verse, "April is the cruellest month."

* * *

"Fanning community enthusiasm for the latest types of medical equipment, and the acquisition of that equipment by a local hospital, is liable to have an effect contrary to the one the community sought. Many hospitals, for example, spend heavily for the prestige of possessing the total armament against death — the cobalt bombs (\$85,000), the heart-lung machines (\$45,000), the heart-surgery equipment (\$100,000). Instead, they should seek only the share of that armament that they need and can use regularly. Waste of money on rarely used equipment means a rise in the daily rates for hospital beds, followed by a reluctance on the part of the individual to seek out hospital care. Both the quality of the care and the individual suffer as a result."

Fortune, August 1961

* * *

Let me recall to your mind a series of headlines concerning fantastic "markups." One such set of headlines charged a 7000 per cent markup *over the ingredient cost* of one Schering Corporation drug! . . . I can tell you that we at Baxter have a product with a far more astronomic markup *over the ingredient cost* than anything the (Kefauver) committee released for the front pages. One of our ingredients has a markup of

more than half a million per cent — 675,000 per cent to be exact. That ingredient is water. . . . Actually, this fabulous markup gives us a sales profit of 7.1 per cent. We are not selling this ingredient. You can get that out of a faucet. We are selling injectable distilled water which will not cause a fever when introduced into the blood stream.

William B. Graham, President
Baxter Laboratories, Inc., to the
Investment Analysts Society of
Chicago.

* * *

The Arizona State Department of Health has indicated that it would be willing to take over all medical aspects of State Civil Defense including operation of nine emergency field hospitals. This is a commendable move. The inefficiency of our state, national, and local Civil Defense organizations to take even reasonable means to establish a satisfactory medical organization has been appalling. We commend the State Health Department for this move.

* * *

Fluoridation of community water supplies, H.I.F. points out, is "universally urged by authorities with scientific background for judgment" as a means of preventing tooth decay. Yet less than one-fourth of the U.S. population lives in areas benefiting from fluoridated water.

* * *

Early in the Kefauver hearings, the subcommittee invited testimony from the Arthritis and Rheumatism Foundation. There followed appalling disclosures that some \$250 million are spent each year by arthritics on useless quack cures . . . Considering the close attention of the press and public to these proceedings, never had a Congressional inquiry been handed a finer opportunity to launch a public crusade and mobilize national resources to stamp out criminal operatives in the health field. And what happened? Nothing. The investigators were far more interested in getting back to the assault on manufacturers of cortisone and its derivatives which have actually restored millions of cripples and potential cripples to useful, productive life.

Report to the Nation: Austin Smith,
M.D., President, Pharmaceutical
Manufacturers Association

* * *

In the long running controversy over Social

Security coverage for doctors, one rather remarkable fact has been generally overlooked: 40 per cent of the nation's working physicians are already on the active rolls. And more than 60 per cent have some credits.

Medical World News

* * *

Most people forget that *they* are government and that the *people must pay in taxes* for every appropriation *government* makes. The issues are fast being drawn. One of them is, will government dominate research or will private initiative be left a significant role? Another is, will prices of health products and many other products be regulated by competitive forces as they have been in the past or by government? A third is, will medicine remain a free profession or will it be forced to put on the cloak of socialism under gradual Federal encroachment? As we pass into any program which is socialistic, sacrifice the total well being, independence and dignity of the individual to the well being of the masses, where people are leveled into mediocrity, with little independence and sacrifice of dignity by the individual as has been done in Russia.

Francis Brown, Pres., Shering Corporation

* * *

It's my opinion that there will be a renaissance of the two-year school in this country for two reasons; because of the significant role it can play in its own right and because it represents, to a good many people, a four-year medical school of the future. One of the easiest ways to create more four-year schools is to build more two-year schools first. So long as there continue to be 500 to 700 available places in the last two years of the four-year schools, it seems almost foolhardy not to continue creating two-year schools.

Dean S. Marsh Tenney, Dartmouth College

* * *

A couple of years ago I spent a good deal of time with a Russian mission representing the drug industry, including a Mr. Natradze who, I understand, is or was the head of the whole Russian pharmaceutical operation. From him I learned about the Soviet system, and it *does* supply medicine for the sick. But in the 40-odd years of its existence the Soviet Union — despite its achievements in space — has not produced a single important pharmaceutical breakthrough.

The Generic Fallacy: Francis Boyer,

Chairman of the Board, S-K-F Laboratories

Editorials

Letters to the Editor

November 21, 1961

Dear Sir:

Thank you for your courtesy in publishing my letter to the editor, page 40A, and 41A, in the November issue of *Arizona Medicine*.

For the sake of accuracy, I should like to call your attention to two errors in the printing of my letter.

On the bottom line of Page 40A, the quotation "... distrust by self-interest." Should read "distrust his own automatic responses and influenced unconsciously by self interest."

Also, on line nine, page 41A the words "... terms are," should read "... terms as "reactionary paranoids," and "crusaders of the left, are ..."

Thank you again for your consideration.

Sincerely yours,
ROBERT F. LORENZEN, M.D.

* * *

Dear Doctor:

Once again we take pride in sending you this first announcement of our Fifth Annual Cardiac Conference, to be held in Phoenix, Arizona on January 26-27, at the Arizona Biltmore Hotel.

You may have been with us for one of the previous conferences and if so, you will recall that this hotel has excellent facilities for this kind of meeting. The distinguished speakers for the next symposium are as follows:

Dr. Alfred Blalock, Surgeon-In-Chief, Johns Hopkins University Medical School; Dr. Hans H. Hecht, Professor of Medicine, University of Utah Medical School; Dr. Demetrio Sodi Palares, Instituto Nacional De Cardiologia, Mexico, D. F.; and Dr. James V. Warren, Professor and Chairman, Department of Medicine, Ohio State University Medical School.

We hope that you will give serious consideration to combining this meeting with a delightful vacation in the Valley of the Sun during tihs last week of January. Rooms have been set aside by the Arizona Biltmore Hotel for your convenience. Their rates for this meeting are \$48 per day for a double room and will include meals for your wife and yourself. This also includes your Friday evening cocktails and banquet ticket. I need not tell you that this is a special rate for

physicians and their wives. We think this would give you the very best facilities that are available in Arizona.

Phoenix, Arizona is in a warm valley where the temperature in January will range between 60 and 72 degrees Fahrenheit. An excellent golf course, riding stables and swimming pool are on the hotel grounds. We hope very much that you will plan your winter vacation and be with us on January 26-27.

Yours sincerely,

LESLIE B. SMITH, M.D.,

Chairman,

1962 Symposium Planning Committee,

Arizona Heart Association

AAGP GOLF TOURNEY

ROSS LABORATORIES TROPHY



Dr. Frank A. Shallenberger Jr., is the first winner of the Low Net Perpetual Trophy presented by Ross Laboratories at the recent meeting of the Arizona Chapter of the American Academy of General Practice in Tucson. The trophy is to be passed on each year to the winner of the golf tournament held by the Arizona Chapter of the American Academy of General Practice.



Schering

Keep the rheumatic man in motion!

DELENAR loosens the rheumatic grip on muscles and joints, starts them functioning again—first by a direct relaxant action on skeletal muscle, again by its specific analgesic effects. And, while immediate symptomatic relief restores motion, underlying inflammation is reduced with the low-dosage corticosteroid.

Now you can restore comfortable motion safely, surely with DELENAR in rheumatoid arthritis/traumatic arthritis/early osteoarthritis/spondylitis/fibrositis/myositis/bursitis/tenosynovitis.

Formula:

Orphenadrine HCl	15 mg.	Proved muscle relaxant to relax spasm
Aluminum Aspirin	375 mg.	Fast analgesic relief of motion-stopping pain
Dexamethasone*	0.15 mg.	Low-dosage anti-inflammatory steroid

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J. **Bibliography:** 1. Ernst, E. M.: Pennsylvania M.J. 63:708 (May) 1960. 2. Settel, E.: Clin. Med. 7:1835 (Sept.) 1960.

*DERONIL® brand of dexamethasone

loosens the rheumatic grip on muscles and joints

brand of antirheumatic preparation

Delenar®

In oral penicillin therapy
COMPOCILLIN-VK
offers the speed, the certainty,
the effectiveness
of this...



with the safety
and the convenience
of this...



IN ORAL PENICILLIN THERAPY COMPOCILLIN®-VK

POTASSIUM PENICILLIN V

BECAUSE potassium penicillin V (Compo-cillin-VK) offers excellent absorption^{1,2,3,4}—fast, predictable levels of antibacterial activity enter the blood stream and quickly reach the site of infection. *Absorption takes place high in the digestive tract and is virtually unaffected by gastric media.*

Antibacterial levels are so predictable that, in many cases, *Compocillin-VK may be prescribed in place of injectable penicillin.* This is especially appreciated by younger patients and—as you know—oral administration is considered far safer than injectable.

Compocillin-VK is well tolerated and may be used in treating mild, severe, and in high dosage ranges, even critical cases involving penicillin-sensitive organisms. It comes in stable, palatable forms for every patient—every age.

There are tiny, easy-to-swallow Filmtab® tablets—125 mg. and 250 mg. (200,000 units and 400,000 units), a tasty, cherry-flavored suspension (each 5-ml. teaspoonful contains 125 mg.) and two combinations (Filmtab and suspension) with the triple sulfas. Depending on severity of infection, dosage for Compocillin-VK is usually 125 mg. or 250 mg. three times a day. Won't you try Compocillin-VK?

1. R. Lamb and E. S. Maclean, Penicillin V—A Clinical Assessment After One Year, *Brit. M. J.*, July 27, 1957, p. 191-193. 2. J. I. Burn, M. P. Curwen, R. G. Huntsman and R. A. Shooter, A Trial of Penicillin V, *Brit. M. J.*, July 27, 1957, p. 193. 3. J. Macleod, Current Therapeutics, *The Practitioner*, 178:486, April, 1957. 4. W. J. Martin, D. R. Nichols and F. R. Heilman, Observations on Clinical Use of Phenoxymethyl Penicillin (Penicillin V), *J.A.M.A.*, p. 928, March 17, 1956.





Emotional control regained . . . a family restored . . . thanks to a physician and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances, because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the reassuring fact that, in most

patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Of special value in mental and emotional disturbances: Tablets for initial therapy; Injection (Ampuls and Vials) for prompt control; Spansule® sustained release capsules for all-day or all-night therapy with a single oral dose.

Thorazine® brand of chlorpromazine
a fundamental drug in both
office and hospital practice
Smith Kline & French Laboratories



posed by professional models

'THORAZINE' PRESCRIBING INFORMATION

Because of its pronounced calming effect, 'Thorazine' is an outstanding agent for patients with mental and emotional disturbances, particularly those with symptoms of agitation and hyperactivity. In severe cases, initial use of intramuscular administration may be desirable to control symptoms promptly.

Before prescribing 'Thorazine' for other indications than those given below, the physician should be familiar with the dosage, side effects, cautions and contraindications for such uses. This information is available in the *Thorazine® Reference Manual and Physicians' Desk Reference*, and from your SK&F representative or your pharmacist.

ADMINISTRATION AND DOSAGE

Dosage should always be adjusted to the response of the individual and according to the severity of the condition. It is important to increase dosage until symptoms are controlled or side effects become troublesome. In emaciated or senile patients, dosage increases should be made more gradually than in other patients.

ADULT DOSAGE

Mental and Emotional Disturbances (e.g., agitation, excitement, or anxiety)—*Starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. After a day or two, dosage may be increased by increments of 20 mg. to 50 mg. daily, at semiweekly intervals, until maximum clinical response is achieved. Continue dosage at this level for at least two weeks; then it can usually be reduced to a maintenance level. A daily dosage of 200 mg. is "average," but some patients may require substantially higher dosages. Discharged mental patients, for example, may require daily dosages as high as 800 mg. *Starting intramuscular dose* is 25 mg. (1 cc.). If necessary, and if no hypotension occurs, repeat the initial dose in one hour. Subsequent dosages should be oral, starting at 25 mg. to 50 mg. t.i.d.

Alcoholism—Severely agitated patients: *Starting intramuscular dose* is 25 mg. to 50 mg. (1-2 cc.). Repeat initial dose if necessary and if no hypotension occurs. Start subsequent oral dosages at 25 mg. to 50 mg. t.i.d. **Agitated but manageable patients:** *Starting oral dose* is 50 mg., followed by 25 mg. to 50 mg. t.i.d. For ambulatory patients with withdrawal symptoms or sober chronic alcoholics, *starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. Patients in a stuporous condition should be allowed to sleep off some of the effects of the alcohol before 'Thorazine' is administered.

CHILDREN'S DOSAGE

For Behavior Disorders—Oral dosage is on the basis of ¼ mg./lb. of body weight q4-6h, until symptoms are controlled (i.e., for 40 lb. child—10 mg. q4-6h). *Rectal dosage* is on the basis of ½ mg./lb. of body weight q6-8h, p.r.n. (i.e., for 20-30 lb. child—half of a 25 mg. suppository q6-8h). *Intramuscular dosage* is on the basis of ¼ mg./lb. of body weight q6-8h, p.r.n. In children up to 5 years (or 50 lbs.)—not over 40 mg./day; in children 5-12 years (or 50-100 lbs.)—not over 75 mg./day except in extreme unmanageable cases. In severe cases, higher dosages than those recommended above may be necessary. In such cases, 50-100 mg. daily has been used and, in older children, as much as 200 mg. daily or more may be required.

IMPORTANT NOTES ON INJECTION

Except for acute ambulatory cases, parenteral administration should generally be reserved for bedfast patients. Parenteral administration should always be made with the patient lying down and remaining so for at least ½ hour afterward because of possible hypotensive effects. The injection should be given *slowly, deep* into the upper outer quadrant of the buttock. If irritation and pain at the site of injection are problems, dilution of 'Thorazine' Injection with physiologic saline solution or 2% procaine solution may be helpful. Subcutaneous administration is not advisable, and care should be taken to avoid injecting undiluted 'Thorazine' Injection into a vein. Intravenous administration is recommended only for severe hiccups and surgery. 'Thorazine' Injection should not be mixed with other agents in the syringe. Because contact dermatitis has been reported with 'Thorazine', nurses or others giving frequent injections should avoid getting the solution on hands or clothing. 'Thorazine' Injection should be protected from light, since exposure may cause discoloration. Slight yellowish discoloration will not alter potency or efficacy. If markedly discolored, the solution should be discarded.

SIDE EFFECTS

The drowsiness caused by 'Thorazine' is usually mild to moderate and disappears after the first or second week of therapy. If, however, drowsiness is troublesome, it can usually be controlled by lowering the dosage or by administering small amounts of dextro amphetamine. Other side effects reported occasionally are dryness of the mouth, nasal congestion, some constipation, miosis in a few patients and, very rarely, mydriasis.

Mild fever (99°F.) may occur occasionally during the first days of therapy with large intramuscular doses.

Some patients have an increased appetite and gain weight, but usually reach a plateau beyond which they do not gain.

CAUTIONS

Jaundice: The over-all incidence of jaundice due to 'Thorazine' has been low—regardless of indication, dosage, or mode of administration. It appears to be related to duration of therapy. Few cases have occurred in less than one week or after six weeks. The jaundice that has occurred mimics the obstructive type, is without parenchymal damage, and is usually promptly reversible upon the withdrawal of 'Thorazine'. Although the mechanism is not clearly understood, most investigators conclude that it is a sensitivity reaction in susceptible individuals.

There is no conclusive evidence to indicate that pre-existing liver disease makes the patient more susceptible to jaundice. (Patients with known alcoholic cirrhosis have been treated with 'Thorazine' without further alteration of liver function.) Nevertheless, 'Thorazine' should be used with due consideration in a patient with liver disease. If a patient on 'Thorazine' suddenly develops fever with gripe-like symptoms, his serum should be tested for increased bilirubin or his urine for the presence of bile. If any of these tests are positive, 'Thorazine' should be discontinued.

Because detailed liver function tests of 'Thorazine'-induced jaundice give a picture which mimics extrahepatic obstruction, exploratory

laparotomy should be withheld until sufficient studies confirm extrahepatic obstruction.

Agranulocytosis: Agranulocytosis, although rare, has been reported. Patients should be observed regularly and asked to report at once the sudden appearance of sore throat or other signs of infection. If white blood counts and differential smears give an indication of cellular depression, the drug should be discontinued, and antibiotic and other suitable therapy should be instituted.

Because most reported cases have occurred between the fourth and the tenth weeks of treatment, patients on prolonged therapy should be observed particularly during that period.

A moderate suppression of total white blood cells, sometimes observed in patients on 'Thorazine' therapy, is not an indication for discontinuing 'Thorazine' unless accompanied by other symptoms.

Potiation: 'Thorazine' prolongs and intensifies the action of many central nervous system depressants such as anesthetics, barbiturates and narcotics. Consequently, it is advisable to stop administration of such depressants before initiating 'Thorazine' therapy. Later the depressant agents may be reinstated, starting with low doses, and increasing according to response. Approximately ¼ to ½ the usual dosage of such agents is required when they are given in combination with 'Thorazine'. (However, 'Thorazine' does not potentiate the anticonvulsant action of barbiturates. In patients who are receiving anticonvulsants, the dosage of these agents—including barbiturates—should not be reduced if 'Thorazine' is started. Rather, 'Thorazine' should be started at a very low dosage and increased, if necessary.)

Hypotensive Effect: Postural hypotension and simple tachycardia may be noted in some patients. In these patients, momentary fainting and some dizziness are characteristic and usually occur shortly after the first parenteral dose, occasionally after a subsequent parenteral dose—very rarely after the first oral dose. In most cases, prompt recovery is spontaneous and all symptoms disappear within ½ to 2 hours with no subsequent ill effects. Occasionally, however, this hypotensive effect may be more severe and prolonged, producing a shock-like condition.

In consideration of possible hypotensive effects, the patient should be kept under observation (preferably lying down) for some time after the initial parenteral dose. If, on rare occasions, hypotension does occur, it can ordinarily be controlled by placing the patient in a recumbent position with head lowered and legs raised. If a vasoconstrictor is required, 'Levophed' and 'Neo-Synephrine' are the most suitable. Other pressor agents, including epinephrine, are not recommended because phenothiazine derivatives may reverse the usual elevating action of these agents and cause a further lowering of blood pressure.

Antiemetic Effect: The antiemetic effect of 'Thorazine' may mask signs of overdosage of toxic drugs and may obscure diagnosis of conditions such as intestinal obstruction and brain tumor.

Dermatological Reactions: Dermatological reactions have been reported. Most have been of a mild urticarial type, suggesting allergic origin. Some appear to be due to photosensitivity, and patients on 'Thorazine' should avoid undue exposure to the summer sun.

Neuromuscular (Extrapyramidal) Reactions: With very high doses of 'Thorazine', as frequently used in psychiatric cases over long periods, a few patients have exhibited neuromuscular (extrapyramidal) reactions which closely resemble parkinsonism. Such symptoms are reversible and usually disappear within a short time after the dosage has been decreased or the drug temporarily withdrawn. These reactions can also be controlled by the concomitant administration of an anti-parkinsonism agent (see *Physicians' Desk Reference*). Depending on the severity of the symptoms, suitable supportive measures such as maintaining a clear airway and adequate hydration should be employed. When 'Thorazine' is reinstated, it should be at a lower dosage.

Lactation: Moderate engorgement of the breast with lactation has been observed in female patients receiving very large doses of 'Thorazine'. This is a transitory condition which disappears on reduction of dosage or withdrawal of the drug.

CONTRAINDICATIONS

'Thorazine' is contraindicated in comatose states due to central nervous system depressants (alcohol, barbiturates, narcotics, etc.) and also in patients under the influence of large amounts of barbiturates or narcotics.

SUPPLIED

Tablets, 10 mg., 25 mg., 50 mg. and 100 mg., in bottles of 50, 500 and 5000; 200 mg., for use in mental hospitals, in bottles of 500 and 5000. (Each tablet contains 10 mg., 25 mg., 50 mg., 100 mg., or 200 mg. of chlorpromazine hydrochloride.)

Spansule® capsules, 30 mg., 75 mg., 150 mg. and 200 mg., in bottles of 30, 250 and 1500; also 300 mg., in bottles of 30 and 1500. (Each 'Spansule' capsule contains 30 mg., 75 mg., 150 mg., 200 mg., or 300 mg. of chlorpromazine hydrochloride.)

Ampuls, 1 cc. and 2 cc. (25 mg./cc.), in boxes of 6, 100 and 500. (Each cc. contains, in aqueous solution, 25 mg. of chlorpromazine hydrochloride; 2 mg. of ascorbic acid; 1 mg. of sodium bisulfite; 1 mg. of sodium sulfite; 6 mg. of sodium chloride.)

Multiple-dose Vials, 10 cc. (25 mg./cc.), in boxes of 1, 20 and 100. (Each cc. contains, in aqueous solution, 25 mg. of chlorpromazine hydrochloride; 2 mg. of ascorbic acid; 1 mg. of sodium bisulfite; 1 mg. of sodium sulfite; 1 mg. of sodium chloride; 2% benzyl alcohol as preservative.)

Syrup, 10 mg./teaspoonful (5 cc.), in 4 fl. oz. bottles. (Each 5 cc. contains 10 mg. of chlorpromazine hydrochloride.)

Suppositories, 25 mg. and 100 mg., in boxes of 6. (Each suppository contains 25 mg. or 100 mg. of chlorpromazine; glycerin, glyceryl monopalmitate, glyceryl monostearate, hydrogenated coconut oil fatty acids, hydrogenated palm kernel oil fatty acids, lecithin.)

Concentrate (for hospital use), 30 mg./cc., in 4 fl. oz. bottles, in cartons of 12 and 36, and in gallon bottles. (Each cc. contains 30 mg. of chlorpromazine hydrochloride.)

*'Levophed' and 'Neo-Synephrine' are the trademarks (Reg. U.S. Pat. Off.) of Winthrop Laboratories for its brands of levaterenol and phenylephrine respectively.



who
coughed?

WHENEVER COUGH THERAPY
IS INDICATED

HYCOMINE[®]

Syrup

THE COMPLETE Rx FOR COUGH CONTROL

*cough sedative / expectorant
antihistamine / nasal decongestant*

■ relieves cough and associated symptoms
in 15-20 minutes ■ effective for 6 hours or
longer ■ promotes expectoration ■ rarely
constipates ■ agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE[®] Syrup
contains: Hycodan[®]

Dihydrocodeinone Bitartrate 5 mg.	} 6.5 mg.
(Warning: May be habit-forming) Homatropine Methylbromide 1.5 mg.	

Pyrilamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10 mg.
Ammonium Chloride	60 mg.
Sodium Citrate	85 mg.

Average adult dose: One teaspoonful after meals
and at bedtime. May be habit-forming. Federal law
allows oral prescription.



Literature on request

ENDO LABORATORIES
Richmond Hill 18, New York

HOW
CARTRAX[®]
OFFERS
BETTER PROTECTION
AGAINST ANGINA PECTORIS
THAN VASODILATORS
ALONE:



TOGETHER—IN CARTRAX...

they decrease "length, severity, and amount of angina pectoris" in anxious cardiacs.¹

Give your angina patient better protection by balancing supply and demand... with CARTRAX.

note: Should be given with caution in glaucoma.

dosage: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. Atarax) 3 to 4 times daily. When indicated, this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. Atarax). For convenience, write "CARTRAX 10" or "CARTRAX 20." Supplied in bottles of 100. Prescription only.

1. Clark, T. E., and Jochem, G. G.: Angiology **11**:361 (Aug.) 1960.

*brand of hydroxyzine **pentaerythritol tetranitrate



New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

“The first prescription I ever wrote
was for ‘Empirin’ with Codeine...



and it is still my stand-by
for pain relief today.”

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

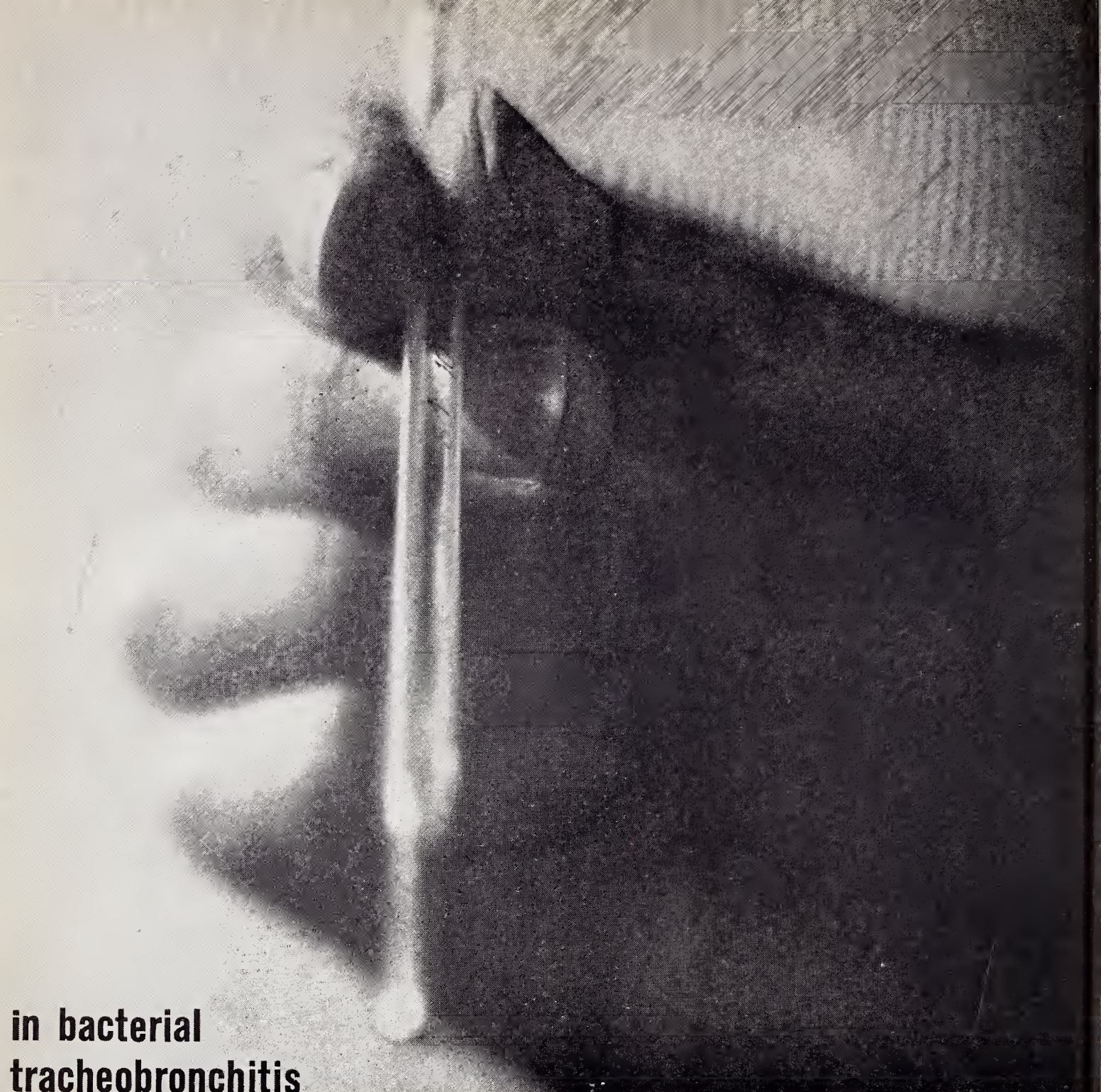
*Remember there are now
four strengths available...*

**Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.*

No. 1 — gr. ¼
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



in bacterial
tracheobronchitis

Panalba*
promptly
to gain precious
therapeutic hours

Panalba  your broad-spectrum
antibiotic of first resort

In the presence of bacterial infection, taking a culture to determine bacterial identity and sensitivity is desirable—but not always practical in terms of the time and facilities available.

A rational clinical alternative is to launch therapy at once with Panalba, the antibiotic that provides the best odds for success.

Panalba is effective (in vitro) against 30 common pathogens, including the ubiquitous staph. Use of Panalba *from the outset* (even pending laboratory results) can gain precious hours of effective antibiotic treatment.

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novoblocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules 3 or 4 times a day.

Side Effects: Panmycin Phosphate has a very low order of toxicity comparable to that of the other tetracyclines and is well tolerated clinically. Side reactions to therapeutic use in patients are infrequent and consist principally of mild nausea and abdominal cramps.

Albamycin also has a relatively low order of toxicity. In a certain few patients, a yellow pigment has been found in the plasma. This pigment, apparently, a metabolic by-product of the drug, is not necessarily associated with abnormal liver function tests or liver enlargement.

Urticaria and maculopapular dermatitis, a few cases of leukopenia and thrombocytopenia have been reported in patients treated with Albamycin. These side effects usually disappear upon discontinuance of the drug.

Caution: Since the use of any antibiotic may result in overgrowth of nonsusceptible organisms, constant observation of the patient is essential. If new infections appear during therapy, appropriate measures should be taken. Total and differential blood counts should be made routinely during prolonged administration of Albamycin. The possibility of liver damage should be considered if a yellow pigment, a metabolic by-product of Albamycin, appears in the plasma. Panalba should be discontinued if allergic reactions that are not readily controlled by antihistaminic agents develop.

*Trademark, Reg. U.S. Pat. Off.
The Upjohn Company
Kalamazoo, Michigan

Upjohn

Is This The End Of The Line?

George M. Fister, M.D.

Mr. Chairman, Fellow Physicians, and Guests:

All of us, I am sure, are clearly aware of the ominous threat of international communism — and its implications for peace and freedom everywhere.

Today, however, I should like to emphasize another kind of threat which also demands our close attention. It is an *internal* threat — here in our own country. This is the continuing, growing danger of government encroachment and government spending, as opposed to individual responsibility and voluntary action under a free economy.

For the past 15 years, the trend toward big government and ever-increasing taxes has been gaining momentum. It now is reaching proportions which present a serious threat to our future financial stability and our way of life. The philosophy of the welfare state — the attitude of “let Uncle Sam do it” — has been making gradual, insidious headway. And here, as in so many other countries, the system of health care has been a prime objective of those who believe that federal legislation can solve all problems.

Any of you who have been in medical practice for the past dozen years or more are familiar with this growing threat, especially as it has become more persistently evident in the field of health care. Almost 13 years ago, the medical profession had to rally its forces to meet a legislative crisis in Washington. Now, we must do the same thing again — and with equally intensive effort.

Very briefly, and without going into details, let me trace the course of this threat which once again has come to a head.

The first of the so-called Wagner-Murray-Dingell omnibus health bills, including provisions for a system of national compulsory health insurance, was introduced almost 23 years ago. These perennial proposals received very little attention for a decade. However, after the 1948 elections, it became apparent that the Truman

administration intended to push strongly for enactment of national compulsory health insurance. Facing up to this major threat, the American Medical Association in January 1949, began its national education campaign to defeat the proposed legislation.

The challenge then was obvious; the issue was clear-cut, and the battle lines were drawn. The question was whether or not the American people wanted a form of socialized medicine for the bulk of the population. The AMA — with the help of some 11,000 local, state and national organizations of all kinds — rallied tremendous public support for medicine's cause.

From 1949 through 1952, the members of Congress could see clearly from the upsurge of public opinion that the people did not want national compulsory health insurance, or any other form of government medicine. The proposal never emerged from committee, and in the 1950 congressional elections a number of its most outspoken supporters were defeated for re-election.

‘PIECEMEAL STRATEGY’

However, *even before that campaign ended in 1952*, the proponents of national health legislation began to switch their tactics and strategy. They saw that a massive, frontal attack could not succeed, so they changed the more subtle strategy of flank attacks and infiltration. They adopted the “piecemeal” approach and started to split up the so-called omnibus health program into separate bills.

For example, Oscar Ewing — then federal security administrator — proposed Social Security hospital benefits for people over age 65. The first efforts were made to enact the waiver of premium for disabled persons covered by the Social Security program. Other bills began to crop up on such subjects as cash benefits for both permanent and temporary disability, federal aid to medical education, and various types of expanded government health activities.

Since 1952, there has been no relaxation of the social planners, their political spokesmen

President-Elect, The American Medical Association. Address delivered before the Arizona Chapter, American College of Surgeons, Hotel Superstition Ho, Apache Junction, Arizona, on November 16, 1961.

Topics

and their supporters. With far too much success, they have been increasing their efforts to enact various "fringe" proposals — each one of which then serves as a precedent or stepping-off point for still another proposal. The ultimate objective of the Fabian strategists behind the scenes is the full package of the welfare state, including a government-controlled system of health care.

Strangely enough, from 1944 through 1953, the Congress did not enact a single bill which was opposed by the medical profession, and it adopted numerous measures which received our support. However, since 1953 — despite the high level of prosperity and eight years of a conservative administration in Washington — we have seen the passage of more medically undesirable legislation than in any other comparable period. And every year there is a sizeable increase in the number of bills involving health and health care. During the 86th Congress, that figure reached close to 800, and in just the first session of the 87th Congress it hit 555.

Underlying most of these proposals is the basic issue of government largess versus private responsibility. This issue stands out clearly in the latest, and most serious, manifestation of the over-all trend which I have been discussing.

THEY KEEP TRYING

The current chapter began in 1957 with the introduction of the Forand bill, which was a revival and expansion of the 1952 Ewing proposal that I mentioned earlier. There have been numerous variations of the Forand bill, latest of which is the King-Anderson bill in the present Congress. This would provide certain hospital, nursing home and other health care benefits to persons eligible for Social Security retirement payments.

Basically, this approach is simply one chunk of national compulsory health insurance — with all covered persons paying a higher Social Security tax, but with the benefits limited to a particular age group. The end result, in view of past trends, is quite obvious — this type of program, employing the Social Security System, would lead to gradual, inevitable expansion of benefits and eligibility . . . until we arrived ultimately at a full-scale system of national compulsory health insurance.

As former Congressman Aime Forand said earlier this year:

"If we can only break through and get our

foot inside the door, then we can expand the program after that."

I want to return to this very timely issue of health care for the aged, but first let me try to put this whole picture in proper perspective.

The various types of health legislation which I have mentioned are only examples, only one part, of an over-all trend. The increasing efforts to expand government activities have *not* arisen because of any serious crises, failures or deficiencies in the American health care system. Rather, they have emerged during a time of change as just one facet of a spreading ideology that would transfer initiative and responsibility from the people to the federal government.

Earlier I pointed out that almost 800 health bills were introduced in the 86th Congress. That, however, was only a fraction of the total of almost 20,000 bills — on housing, education, electric power, agriculture, public welfare, and practically every conceivable subject under the sun. And in just the *first* session of the 87th Congress the total number of bills went over 14,000.

All of this reflects the growing misconception that every problem can be solved by a new law and a new government program. The price, of course, is bigger budgets, higher taxes, more federal regulations and a progressive loss of individual freedom.

In our complex, modern society there *is* a proper place for sound government programs which meet a demonstrated need, and which stimulate private, state and local action. And in the realm of health there *is* a legitimate need for government activities to protect the public health, assist medical research, stimulate the construction of necessary health facilities, and establish minimum standards for the protection of the public. Over the years, the medical profession has supported countless legislative proposals which meet those criteria — including such examples as the Hill-Burton hospital construction program, and the Kerr-Mills program to aid the needy and near-needy old people.

However, in a nation like ours, there is *not* any need for large-scale government programs which would intrude upon the provision and financing of personal health services for the bulk of our population — or for the majority of any particular age group.

Nevertheless, as you undoubtedly know from recent newspaper reports, the administration in Washington, the leaders of organized labor, and

their allies are planning an all-out drive for enactment of the King-Anderson legislation next year. This, of course, was to be expected because 1962 will be an election year.

As part of the drive, the administration launched a political road show — in the form of a series of seminars in a dozen key cities. These are being attended by cabinet members and other federal officials to help build public support for Social Security health care and other proposals.

Meanwhile, the Senate Subcommittee on Aging — the so-called McNamara Committee — also has begun a series of politically-designed hearings in some 30 key cities . . . for the same purpose.

In addition, former Congressman Forand — whom I mentioned earlier — is now heading up a new organization called the National Council of Senior Citizens for Health Care Through Social Security. The purpose of this move is to mobilize the thousands of golden age clubs and senior citizen groups of the country into a solid bloc.

All indications point to the fact that the issue of health care for the aged will probably provide the liveliest and toughest congressional battle of 1962.

Needless to say, the American Medical Association and the millions of people who agree with us will not be idle. We are going to the American people with facts, reason, logic and good old-fashioned common sense.

So, with this major struggle ahead of us, I come to the question which is the title of my address — “Is This the End of the Line?”

Are we going to lose our fight — next year, in 1963, in 1964, or eventually? Does this mark the end of the line for freedom in medical practice?

I say *no* to both questions. I say that we can win this fight — *if* we will make the intensive, constructive effort of which we are capable . . . and *if* we work for the highest possible degree of *unity* within the entire profession.

In connection with this vitally important factor of unity, you may have noticed that I opened my remarks by addressing you as “fellow physicians.” I did so deliberately in order to emphasize a point — a point that applies not only to Arizona surgeons, but also to *all* American doctors.

Let’s not forget that *all* of us are *physicians first . . . doctors of medicine . . . members of the medical profession*. We all had the same basic medical education and training — to prepare us for serving humanity.

The extra toga which some of us have donned — whether as surgeons, urologists, pathologists, pediatricians, cardiologists or what have you — simply denotes an additional refinement of our medical interests and efforts.

Regardless of our field of practice — general or specialized — most of us belong to medical and scientific organizations which are concerned with our particular interests. This is right and proper, and it makes for better medicine all along the line.

ONE ORGANIZATION

However, the fact remains that there is only one organization which *represents all of us, acts for all of us, and serves all of us* — and that is the American Medical Association. If we are to achieve medical unity, it can be accomplished only by mobilizing all doctors under the banner of the AMA, which is dedicated to the interests of the *entire medical profession and all the American people*.

Health care for the aged—although an extremely important, timely subject — is actually only one of the many difficult issues which medicine will be facing in the times ahead.

All of them — if we are to be effective and successful — will require medical unity. The time has passed when we can afford to think, act and speak as a myriad of splinter groups — as specialists, general practitioners, solo or group practice men, medical teachers, researchers, public health officials, or any other category you might name.

The medical profession — demonstrating a real dedication to the best ethics and traditions of medicine — must organize a united front.

The immediate task of this united front will be to present medicine’s story on the issue of health care for the aged. This will involve not simply the arguments *against* Social Security health care, but also — and more important — the positive case for the existing mechanisms which we believe can do the job . . . the Kerr-Mills program for the needy and near-needy, and voluntary health insurance for the remainder of the aged. And this, in turn, will require not only words, but vigorous action to promote maximum

Topics

effectiveness by both of those mechanisms.

The struggle ahead of us should cause neither defeatism nor complacency. It *does* require medical unity and tremendous effort.

If we achieve the unity and make the effort, this will *not* be the end of the line. Instead, it will be the beginning of a great victory.

FINANCIAL CHECK-UP

Periodic financial check-ups for doctors, a variation on routine periodic medical check-ups for financiers and other pressured executives, was prescribed for America's M.D.s by Bernard Carver, President of Boston's B. C. Morton & Company, a nationwide investment group, after he got a look at the results of a recent survey that suggests, popular notions about affluent doctors to the contrary, the country's physicians are really suffering from chronic financial mismanagement — or what is equally costly, lack of any financial or estate planning. He says the obvious cause is the time-consuming demands of the profession.

The survey, conducted by the Hartford (Connecticut) County Medical Association, reports that a study of 144 estates of its local members recently deceased revealed that one out of three died leaving assets of less than \$10,000, while one out of eight died in debt.

"With the latest figures on net annual earnings giving the average M.D. an income of \$22,100, only one conclusion can be drawn. Apparently a large number of doctors are not doing for their financial ills what they expect any sensible layman to do for his physical ailments — seek qualified professional advice," the investment executive declared.

"Therefore," added Carver, "at the risk of incurring the wrath of these hard-working, indispensable professional men, I advise those of them who have not already done so, to seek out a competent financial planning expert in their community. He is qualified to detect symptoms, diagnose, and prescribe for a debilitated financial organism. Or, what's even better, he can usually suggest preventive measures."

Mr. Carver, whose firm maintains 92 financial-planning centers in 42 states and in several foreign lands, said he was prepared for the medical man's excuse of having no time outside of office hours to drop in on a financial expert.

His remedy: "Next time that financial and estate planner patient stops in for a check-up, make it a two-way consultation."

ARIZONA POISONING CONTROL INFORMATION CENTER

The Arizona Poisoning Control Information Center at The University of Arizona, College of Pharmacy, continues to receive an alarming number of reports concerning intentional inhalation of vapors from plastic cement by juveniles. Since April 1961, 54 instances of this practice, involving juveniles between the ages of eight and 17 years, have been reported from the Phoenix and Tucson area. The plastic cement abused is one which contains the volatile solvent, toluene. Exposure to vapors of this solvent produces varying degrees of central nervous system manifestations such as transient euphoria, giddiness, vertigo, mental confusion, ataxia, and stupor. Although these effects are reversible, it should be emphasized that the youth intoxicated by toluene vapor would be no less a menace behind the wheel of an automobile than if he were driving under the influence of alcohol. In addition, repeated exposures to toluene vapors may also produce anemia.

There are other plastic cements which contain harmful, volatile solvents such as ethylene dichloride, and methyl cellosolve. These chemical agents are capable of causing fatal liver and kidney damage following repeated and prolonged exposure to their vapors. Plastic cements containing these solvents are commercially available and may be purchased by juveniles.

In view of the potentially serious consequences of inhalation of the vapors of plastic cements, the Arizona Poisoning Control Information Center, once again, urges parents, educators, physicians, law enforcement officials, and merchants who sell these plastic cements to take steps that will discourage and prevent the abuse of these commercial products.

TREATMENT OF BARBITURATE POISONING

Barbiturate drugs are frequently involved in accidental and intentional poisonings. During the 18-month period from January 1960 to July 1961, 134 cases of poisoning in Arizona from barbiturates were reported to the Arizona Poisoning Control Information Center at The University of Arizona, College of Pharmacy.

There continues to exist disagreement among investigators as to the most effective therapy for barbiturate poisoning. The differences in opinion mainly concern the advisability of the use of analeptic drugs as part of the treatment. A discussion of this subject was presented in a previous Arizona Poisoning Control Information Center's News Bulletin.(1)

A number of recent reports(2-4) from different groups of workers emphasize the excellent results which follow conservative management of barbiturate intoxication. The following are significant findings and conclusions reported by these investigators:

1. Mortality rate from barbiturate poisoning is significantly reduced by eliminating analeptic drugs from the treatment and by observing, rigidly, physiologic principles in therapy, especially with regard to the support of vital functions (respiratory, cardio-vascular, and renal functions and electrolyte homeostasis).(2)

2. Cardiac arrhythmia, tachycardia, convulsion, nausea and vomiting, and post-coma psychosis (complications reported with analeptic drug therapy) are not seen in victims of barbiturate poisoning managed solely by supportive therapy, the so-called physiologic method of treatment.(3,4)

3. The use of analeptic drugs, such as amphetamine, caffeine, and picrotoxin, in deeply comatose patients (victims of barbiturate poisoning) *does not* shorten the duration of coma.(4) Intensive and meticulous supportive care is the therapy of choice in most cases of barbiturate poisoning. In cases of prolonged coma, especially that resulting from ingestion of long-acting barbiturates, hemodialysis may be a life-saving measure.(2,4)

4. Respiratory and circulatory functions are the most important considerations in supportive therapy for barbiturate poisoning. Primary focus of attention should be the maintenance of a patent airway. The airway should be cleared, and if the patient's reflexes permit, some form

of pharyngeal airway or endotracheal tube should be passed. If apnea or respiratory insufficiency supervenes, artificial respiration should be instituted by means of a mechanical respirator, such as the Bennett or the Bird machine.(2-4) Almost as important as pulmonary ventilation in this supportive therapy is an adequate circulation. A shock syndrome characterized by low blood pressure, a rapid, feeble pulse and pale, cold sweating skin is exhibited by a majority of patients on admission to hospital.(2) Treatment for shock should include whole blood, dextran or plasma transfusion. Levarterenol should be administered by intravenous infusion to maintain blood pressure.(2-4) By continuing this active treatment until the patient is out of the shock phase, it has been found that the incidence of anuria and uremia due to kidney failure has declined.(2)

5. Good nursing care is another important aspect of the successful management of barbiturate poisoning. This phase of treatment consists of meticulous attention to vital signs, frequent changes of position of the patient, attention to pulmonary secretions, careful recording of fluid intake and output, and care of the eyes, skin, and mouth.(2-4) Since treatment of the comatose patient suffering from barbiturate poisoning demands an intensive, around-the-clock effort, this therapy is most effectively carried out in special observation wards such as the intensive therapy units which are now available in many hospitals.(2-4)

STATISTICS OF 120 POISONING CASES IN ARIZONA DURING JULY, 1961

AGE	Per Cent	Number
Under 5 years	73.3	88
6 to 15 years	4.2	5
16 to 30 years	9.2	11
31 to 45 years	8.3	10
Over 45 years	2.5	3
Not reported	2.5	3
NATURE OF INCIDENT:		
Accidental	82.5	99
Intentional	14.2	17
Unknown	3.3	4
TIME OF DAY:		
Between 6 a.m. and noon	40.0	48
Between noon and 6 p.m.	28.3	34
Between 6 p.m. and midnight	18.3	22
Between Midnight and 6 a.m.	2.5	3
Not reported	10.8	13
OUTCOME:		
Recovered	100	120
Fatal	0	0

Topics

CAUSATIVE AGENTS:*

Internal Medicines

Aspirin	20	15.8
Other analgesics	2	1.6
Barbiturates	7	5.6
Antihistamines	1	0.8
Laxatives	2	1.6
Cough medicine	1	0.8
Tranquilizers	12	9.5
Others	12	9.5

Subtotal 57 45.2

External Medicines

Liniment	3	2.4
Antiseptics	1	0.8
Others	5	3.9

Subtotal 9 7.1

Household Preparations

Soaps, detergents, etc.	1	0.8
Disinfectants	1	0.8
Bleach	10	7.9
Lye, corrosives, drain cleaners	3	2.4
Furniture and floor polish	2	1.6

Subtotal 17 13.5

Petroleum Distillates

Kerosene	6	4.8
Gasoline	3	2.4
Others	6	4.8

Subtotal 15 12.0

Cosmetics

	4	3.2
--	---	-----

Pesticides

Insecticides	6	4.8
Rodenticides	0	0.0
Others	0	0.0

Subtotal 6 4.8

Paints, Varnishes, Solvents, etc.

	8	6.3
--	---	-----

Plants

	1	0.8
--	---	-----

Miscellaneous

	4	3.2
--	---	-----

Unspecified

	5	3.9
--	---	-----

TOTAL 126* 100.0

*The total number of causative agents exceeds the actual number of poisoning cases since in certain individual poisoning incidents more than one agent was involved.

REFERENCES

1. Barbiturate Poisoning: Analeptic Therapy vs. Supportive Therapy alone, News Bulletin, Oct. 1, 1958, Arizona Poisoning Control Information Center; also in Arizona Medicine, 15:906, 1958.
2. Clemmesen, C. and Nilsson, E., Therapeutic Trends in the Treatment of Barbiturate Poisoning, Clin. Pharmacol. and Therap. 2:220, 1961.
3. Ferguson, M. J. and Grace, W. J., The Conservative Management of Barbiturate Intoxication: Experience with 96 Unconscious Patients, Ann. Int. Med., 54:726, 1961.
4. Dobos, J. K., Phillips, J. M., and Covo, G. A., Acute Barbiturate Intoxication, J. Am. Med. Assoc., 176:268, 1961.

WILLIS R. BREWER, Ph.D., Dean, College of Pharmacy, The University of Arizona, Tucson; ALBERT L. PICCHIONI, Ph.D., Pharmacologist and Director, Arizona Poisoning Control Program, The University of Arizona, Tucson; LINCOLN CHIN, Ph.D., Pharmacologist, The University of Arizona, Tucson.

BLUE SHIELD

Doctors participate in Blue Shield programs for their own profit and they frequently raise their fees to patients enrolled in Blue Shield. There's no doubt that the doctor is professionally competent, but he's often pretty impersonal and seldom acts like the "dedicated" person he's supposed to be.

These were some of the general conclusions of a recent pilot study of consumer attitudes toward Blue Cross and Blue Shield. The surveyors found many people's feelings about Blue Shield — based on their experiences when seeking Plan benefits through their physicians — are less favorable today than six years ago.

Although these findings are admittedly inconclusive and not necessarily applicable to any but the areas of the pilot study, they will be ignored at our peril. Medicine needs the best possible public image in the days ahead if it is to preserve the free environment in which doctors can best serve their patients.

What's to be done? Both immediately and ultimately, it's up to you and me. Dr. Francis Peabody once said, "The secret of the care of the patient is in caring for the patient." In today's world, this means a lively, thoughtful concern for each patient's personal welfare, his time, his problems, and — not least — his pocketbook.

Blue Shield was created in the doctor's image. And the doctor's image, in the long run, will control the destiny of Blue Shield and of the private practice of medicine.

LIVES TO BE SAVED

MacDonald Wood, M.D.

With deaths continuing in this crazy world of increased motion we should consider the annual report of the Automotive Crash Injury Research(1) (ACIR) of Cornell University, as it brings to light some new, some old, and some very revealing facts and figures.

The ACIR is the *only* organization that is competently collecting, in a continuing fashion, data on injury-producing automobile accidents

throughout the United States. The opinion of the ACIR is based on statistically sound analysis and represents authoritative thought on this subject.

Over 14,500 automobile accidents have been thoroughly evaluated, in a type of investigation as yet unequalled in our motoring civilization. Seventeen states (Arizona being an important contributor) have supplied data since the inception of ACIR in 1953. These data were analysed to determine the relationship between the accident and the injury produced. Of 32,000 occupants in this automobile accident series, over 75 per cent were injured.

CHILDREN

In this series, the groups were divided into children (under 11 years), adolescents (12-18 years), and adults (over 18 years). "Among injured occupants children sustained *more minor injuries* than did others and *fewer fatalities* . . . ; as age increased (child — adolescents — adults) minor injuries decreased and other grades of injury, including fatal injuries, increased." Head injuries were most common regardless of age, but injured children sustained head injuries more often than adolescents or adults, and injury to other areas less often. "*The multiple injury appears to increase with age.*"

THE SAFEST SEAT

The seating habits influence injury. Occupants in the "safest" seat area — the rear seat — were far less often ejected than front seat occupants (50 per cent of cars have no rear door). This area was occupied by 50 per cent of children, 29 per cent of adolescents and 12 per cent of adults. However the youngest children (infants to 3 years) occupied the more hazardous seat — the front seat. "Better protection for both children and adults can be achieved by fuller use of the rear seat . . ."

RURAL ACCIDENTS IN ARIZONA

About 3,000 rural injury-producing accidents in Arizona involving 4,000 automobiles were analyzed and confirmation of previous observations was seen; e.g.:

1. The injury or fatality increased as the speed increased.
2. There were higher weekend injury-producing and fatal accidents than during the week days.

Additional observations were:

1. Later model cars were less frequently in-

involved in injury producing and fatal accidents than earlier models.

2. With more car occupants, there were more injury-producing accidents.

3. Foreign cars had a higher injury and fatality rate than American made cars. (More frequently involved in roll-over accidents)

4. Collision with fixed objects, overturn, and head-on-accidents produced more severe injury. (Only one-third fatal of all accidents, but 60 per cent of fatal accidents.)

DOOR LOCKS

Over 14,000 American accident-involved cars were examined. Doors in cars manufactured *during and since 1956* opened under impact *less frequently* than in cars of previous years.

SEAT BELT STUDY BY CALIFORNIA

HIGHWAY PATROL(2)

In the February 1960 report to the California legislature, (this was required by 1957 statute) over 54,000 automobile accidents were investigated concerning the availability, use and effectiveness of seat belts.

1. Approximately 3.5 per cent of automobiles involved in accidents had one or more safety belts, but only one-third of these automobiles had all of the installed belts worn by occupants.

2. In comparison of users and non-users of safety belts (933 drivers and right front occupants who used belts and 8,894 drivers and right front occupants who did not use seat belts) it was found that "*users of safety belts* sustained approximately 35 per cent less 'major-fatal' grade injuries than non-users."

3. Safety belts function as protective devices in preventing occupants from being thrown out of automobiles under crash conditions.

4. The California highway patrolmen were overwhelmingly in favor of seat belts.

PHYSICIANS' DUTY

Every physician should heed the facts and opinions of the ACIR and intelligently inform each of his patients. Out of the data will come obvious facts to aid us in preventing or lessening injury-producing accidents. Preventive medicine is the solution to mass murder by the automobile.

REFERENCES

1. "Annual Report, Automotive Crash Injury Research, for the period April 1, 1959 to March 31, 1960," Automotive Crash Injury Research of Cornell University, 1960.*
2. Tourin, B. and Garrett, J. W., "Safety Belt Effectiveness in Rural California Accidents," Automotive Crash Injury Research of Cornell University, February 1960.*

*Data cited by special permission of the Automotive Crash Injury Research of Cornell University and the California Highway Patrol.

LOCATION OPPORTUNITIES

ASHFORK — Population 700. North centrally located — Railroad center. Contact the Women's Club, Ashfork, Arizona.

BAGDAD — Population approximately 2,000. Opportunity for GP who is willing and able to do obstetrics and general surgery. Mining community. New 12-bed hospital. Excellent income possibilities with initial guarantee. Second doctor needed due to increased volume of work. Excellent housing and schools. For further information, contact William E. Gorder, M.D., Bagdad Hospital, Bagdad, Arizona.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R. N., Camp Verde, Arizona.

COOLIDGE — Excellent opportunity for a GP. Population 5,000 — in addition to servicing surrounding farm area. Nearest hospital located in Florence, approximately nine miles from Coolidge. Currently five physicians serving the area. Office facilities and most equipment, including X-ray, available on rental basis from local M.D. Contact James H. Boyd, M.D., 291 West Wilson Avenue, Coolidge, Arizona.

EL MIRAGE — Population 2,000 — and including the trading areas of Surprise, Youngtown, Peoria and Luke Air Force Base, the population is estimated at 7,000 to 8,000 persons. Opportunity for a GP due to retirement of doctor currently serving, with the opportunity of school service. Climate is excellent, warm and dry. Office facilities are available in the areas surrounding El Mirage from Glendale (nine miles) to the east, and Wickenburg (35 miles) to the west, there are only two doctors to serve this community. The need for a physician and/or surgeon is very real and one should do very well. For information write Mr. H. Faulkner, Town Clerk, Town of El Mirage, El Mirage, Arizona.

ELOY — Need a doctor of medicine, preferably a GP. Population of 4,000 in farming community with several small towns near by. Located approximately midway between Phoenix and Tucson. Contact H. Howard Holmes, M.D., Eloy Medical Center, Eloy, Arizona.

GLOBE — Population 10,000 and including the mining and cattle areas of Miami, Superior,

Ray, Hayden, Winkleman, Payson and San Carlos; population estimated at 30,000 persons. Located about two hours by car from either Tucson or Phoenix. No ENT man in the area. Ideal climate, with the best area for outdoor activities. Contact Eugene R. Rabogliatti, D.D.S., 149 South Broad Street, Globe, Arizona or A. J. Bosse, M.D., 245 South Hill Street, Globe, Arizona.

MIAMI — Opportunity for GP — Industrial hospital staffed by approximately seven doctors who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact R. V. Horan, M.D., Miami Inspiration Hospital, Miami, Arizona.

MORENCI — Mining community near New Mexico-Arizona border. Population 10,000. Has vacancy at hospital for GP. Contact C. H. Gans, M.D., Morenci Hospital, Morenci, Arizona.

PAGE — Population growing by leaps and bounds at the site of the new Glen Canyon Dam Project. Current estimates are 6,000 to 8,000 total. Only one M.D. is now located in Page and he has facility available. Located about 90 miles north of Flagstaff. Building project is estimated to be concluded in 10 years. Write Ivan W. Kazan, M.D., Sixth Avenue & South Navajo St., Page, Arizona for full details.

PHOENIX — Excellent opportunity for ophthalmologist or EENT man as associate. Contact E. G. Barnet, M.D., 1120 Professional Building, Phoenix, Arizona.

PHOENIX — Growing community of Maryvale has excellent opportunity for a general practitioner. Will be given assistance in establishing practice. Please contact A. H. Erickson, M.D., 5802 West Camelback Road, Phoenix, Arizona.

PHOENIX — Maricopa County has several excellent associations (salary or partnership) available in metropolitan Phoenix and surrounding towns in general practice, ophthalmology, ENT, and pediatrics. Neighborhood locations are also available for GPs. Contact Maricopa County Medical Society, 2025 North Central Avenue, Phoenix, Arizona, 252-5671, advising medical training, military and family status, age, health, etc., and enclose small photograph.

PHOENIX — State Department of Health-Child Development Center. Opportunity for doctor of medicine (Pd) with three years experi-

nce. Male or female. Monthly salary \$690 — full time. Operation includes (a) a doctor of medicine (Pd); (b) two or three psychologists on a consultant basis; (c) a psychiatric social worker; (d) a teacher specializing in child development; and (e) clerical people as required. Scope: Mentally retarded or emotional problems of preschool children. Contact Mr. Thomas Golden, Arizona Merit System, 11 North 17th Avenue, Phoenix, Arizona (AL 3-3189).

PRESCOTT — Unopposed EENT or ophthalmology practice; 95 miles from Phoenix, with year-round climate; excellent for asthmatics; population 15,000 and growing; 10,000 to 15,000 surrounding; hunting and fishing area; two golf courses. Retiree. Collected \$26,000 without surgery first full year; can be greatly increased with surgery. Board or eligible. Contact Louis A. Packard, M.D., Box 69, Prescott, Arizona.

SIERRA VISTA — General practitioner needed in the town of Sierra Vista; ideal weather; stable economy — due to Ft. Huachuca; position as associate or will help locate doctor in his own office; the need is very acute as there is now only one active physician in this town. Please contact Irving I. Folberg, M.D., Box 746, Sierra Vista, Arizona.

SNOWFLAKE — Located in northeastern Arizona — seeking a doctor of medicine. Population approximately 4,000. Nearest hospital located in Show Low, 19 miles from Snowflake. Increased lumber activity anticipated. Mormon LDS community. Contact F. W. Erickson, D.D.S., Medical-Dental Clinic Bldg., Snowflake, Arizona.

ST. JOHNS — Seriously need a doctor of medicine, preferably a GP, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Arizona.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten

miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. F. E. Babcock, President, Chamber of Commerce, 9112 West Van Buren Street, Tolleson, Arizona.

TUCSON — The VA Hospital is in urgent need of a general and thoracic surgeon. They prefer someone who is board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., Director, Professional Service, VA Hospital, Tucson, Arizona.

WILLCOX — Population approximately 2,000 — and including surrounding area, the population is estimated at 4,000. Immediately in need of a general practitioner and surgeon; must have state license or be eligible for same. Opening for an associate. Office available approximately three blocks from the 20-bed hospital in community. Tucson, Arizona is within a locality of 85 miles. Contact Sotero Antillon, M.D., P.O. Box 867, Willcox, Arizona.

* * * * *

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Arizona.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Arizona.

Ira E. Harris, M.D., Miami Inspiration Hospital, Miami, Arizona.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Arizona.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Arizona.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Arizona.

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Arizona.

The offices of the American College of Legal Medicine are at 1003-06 Medical Tower, Philadelphia 3, Pennsylvania. Glen W. Bricker, M.D., F.C.L.M., is secretary.



A full complement of highly trained registered nurses helps make the patient's stay at Camelback Hospital an infinitely more pleasant one.

A normal ratio of more than one registered staff nurse for every two patients assures maximum attention and consideration at all times. Constant care and supervision of patients is provided around the clock by the entire hospital staff.

Camelback Hospital


5055 North 34th Street

AMherst 4-4111

PHOENIX, ARIZONA

OTTO L. BENDHEIM, M.D., F.A.P.A., Medical Director

Located in the heart of the beautiful Phoenix citrus area near picturesque Camelback Mountain, the hospital is dedicated exclusively to the treatment of psychiatric and psychosomatic disorders, including alcoholism.



Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. 172:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA[®]

(carisoprodol, Wallace)

W Wallace Laboratories, Cranbury, New Jersey

In
intestinal
"grippe"

prompt
4 way
check of
diarrhea

- ✓ Curbs excessive peristalsis
- ✓ Adsorbs toxins and gases
- ✓ Soothes inflamed mucosa
- ✓ Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P. ... 2 Gm.
Pectin N.F. 225 mg.
Kaolin 3 Gm.
Opium tincture U.S.P. ... 0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)
Exempt Narcotic. Available on Prescription Only.*

Winthrop
LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



Future Medical Meetings and Postgraduate Education

5th Annual Cardiac Symposium

JANUARY 26-27, 1962

Phoenix, Arizona

Friday, January 26, 1962:

- 8:00 - 9:00 Registration — lobby entrance — Biltmore Hotel.
9:00 Greetings by Dr. W. Shaw McDaniel, Phoenix, Arizona,
President — Arizona Heart Association
9:15 - 9:55 External Cardiac Massage and Defibrillation,
Dr. Alfred Blalock — Baltimore, Maryland.
9:55 - 10:35 Changing Concepts Of Heart Failure,
Dr. James V. Warren — Columbus, Ohio.
10:35 - 10:50 Intermission — Visit exhibits.
10:50 - 11:30 Effects of a Potassium-Glucose-Insulin Treatment on the
Electrocardiographic Signs of Myocardial Infarction,
Dr. Demetrio Sodi Pallares — Mexico, D. F.
11:35 - 12:15 Obstruction and Regurgitation — The Physician and the Physicist,
Dr. Hans Hecht — Salt Lake City, Utah.
12:30 - 2:00 Luncheon at the poolside.
2:00 - 2:40 The Long Term Management of Coronary Artery,
Dr. James V. Warren — Columbus, Ohio.
2:40 - 3:20 Recurrent Problems in Atrial Fibrillation,
Dr. Hans H. Hecht — Salt Lake City, Utah.
3:20 - 3:35 Intermission.
3:35 - 4:30 Panel Discussion of Current Cardiovascular Problems;
Moderators: Dr. Robert N. Class — Tucson, Arizona,
Dr. Earl J. Baker — Phoenix, Arizona

Saturday, January 27, 1962:

- 8:30 - 9:30 Registration continued in the lobby
9:30 Greetings by Dr. Harold J. Rowe, Tucson, Arizona,
President elect — Arizona Heart Association.
9:45 - 10:25 A New Classification of Myocardial Infarction,
Dr. Demetrio Sodi Pallares — Mexico, D. F.
10:25 - 11:05 Recent Developments in our Knowledge of Syncope,
Dr. James V. Warren — Columbus, Ohio.
11:05 - 11:20 Intermission.
11:20 - 12:00 Comparative Studies on Altitude Physiology — an Everyday Lesson,
Dr. Hans H. Hecht — Salt Lake City, Utah.
12:00 - 2:00 Luncheon.
2:00 - 2:40 Bilateral Bundle Branch Block,
Dr. Demetrio Sodi Pallares — Mexico, D. F.
2:40 - 3:20 Recent Advances in Cardiovascular Surgery,
Dr. Alfred Blalock — Baltimore, Maryland.
3:20 - 3:35 Intermission.
3:35 - 4:30 Panel Discussion of Current Cardiovascular Problems;
Moderators: Dr. George W. King — Tucson, Arizona;
Dr. Arthur R. Nelson — Phoenix, Arizona.

Future Meetings

THE ARIZONA MEDICAL ASSOCIATION, INC.

71st ANNUAL MEETING

THEME — PUBLIC HEALTH

April 25 through 29, 1962

Safari Hotel — Scottsdale, Arizona

Tentative Program

Wednesday, April 25, 1962

- 7:30 a.m. Breakfast — Board of Directors Meeting
- 12:00 Noon Luncheon — Board of Directors
- 1:00 p.m. House of Delegates — First Regular Session
- 3:00 p.m. Blue Shield Annual Corporation Meeting
- 6:30 p.m. Reception
- 7:30 p.m. Chuckwagon Dinner

Thursday, April 26, 1962

- 7:30 a.m. Breakfast
- 8:00 a.m. Breakfast Panel Discussion — "Public Health"
Lloyd M. Farner, M.D., Stanford F. Farnsworth, M.D.
- 9:30 a.m. Intermission — Visit Exhibits
- 9:45 a.m. Obstetrical Difficulties, Dr. Parks
- 10:15 a.m. General Session
- 11:45 a.m. Intermission — Visit Exhibits — Attendance Award
- 12:00 Noon Psychiatric Aspects of Pediatrics, Richard Koch, M.D.
- 1:00 p.m. Specialty Society Luncheons

Friday, April 27, 1962

- 7:30 a.m. Breakfast
- 8:00 a.m. Breakfast Panel Discussion — "Fetal and Infant Salvage"
- 9:15 a.m. Intermission — Visit Exhibits
- 9:30 a.m. Congenital Defects
- 10:00 a.m. Drug Reactions, William Sherman, M.D.
- 10:30 a.m. Anemia, Stephen O. Schwartz, M.D.
- 11:00 a.m. Intermission — Visit Exhibits — Attendance Award
- 11:15 a.m. Annual Award Paper
- 11:45 a.m. Cardiovascular Surgery, Henry T. Bahnson, M.D.
- 12:15 p.m. Obstetrical Anesthesia, Peere C. Lund, M.D.
- 1:00 p.m. Specialty Society Luncheons
- 3:00 p.m. House of Delegates — Second Regular Session
- 6:30 p.m. President's Reception
- 8:00 p.m. President's Dinner Dance

Saturday, April 28, 1962

- 9:00 a.m. Asthma, William Sherman, M.D.
- 9:30 a.m. Etiology of Leukemia, Stephen O. Schwartz, M.D.
- 10:00 a.m. Ulcerative Colitis, Richard Koch, M.D.
- 10:30 a.m. Anesthesia, Peere C. Lund, M.D.
- 11:00 a.m. Intermission — Visit Exhibits — Attendance Award
- 11:15 a.m. Thoracic Surgery, Henry Bahnson, M.D.
- 11:45 a.m. Obstetrics and Gynecology, Dr. Parks
- 12:15 p.m. Orthopedics
- 1:15 p.m. Conclusion

**WOMEN'S AUXILIARY TO THE ARIZONA MEDICAL ASSOCIATION
THIRTY-SECOND ANNUAL MEETING**

*April 25, 26, 27, 1962
Safari Hotel — Scottsdale, Arizona
Tentative Program*

Wednesday, April 25, 1962

- 10:00 a.m. Student Nurse Loan Committee Meeting
- 12:00 Noon Registration
- 1:30 p.m. Finance Committee Meeting
- 2:00 p.m. Nominating Committee Meeting
- 2:30 p.m. Pre-Convention State Board Meeting
- 6:30 p.m. Reception
- 7:30 p.m. Buffet Supper

Thursday, April 26, 1962

- 9:00 a.m. Registration
- 9:00 a.m. Coffee Hour
- 10:00 a.m. First General Session
 - Welcome
 - Response
 - President's Report
 - Nominating Committee Report
 - Election of Officers
 - In Memorium
 - Recess of Annual Meeting
 - Meeting — New Executive Board
 - Luncheon — Phoenix Country Club — Second General Session
- 12:30 p.m. County Presidents' Reports
 - Introduction of National Officer
 - Installation of Officers
 - Acceptance — New President
 - Adjournment of 32nd Annual Meeting

Friday, April 27, 1962

- 8:00 a.m. Golf
- 9:00 a.m. Coffee
- 10:00 a.m. Bridge
- 10:00 a.m. Taliesen West Tour
- 2:30 a.m. Phoenix Art Museum — Tea and Tour
- 6:30 p.m. President's Reception
- 8:00 p.m. President's Dinner Dance

**PSYCHIATRY IN THE PRACTICE
OF MEDICINE**

The University of Southern California School of Medicine, Department of Psychiatry and Medicine, in association with the Arizona Academy of General Practice, will present a seminar titled "Psychiatry in the Practice of Medicine" to be held February 3-4, 1962 at the Ramada Inn, Phoenix, Arizona.

The faculty of the University of Southern

California will furnish the teaching personnel. Principal speakers will be: Edward Stainbrook, M.D., Professor of Psychiatry, Chairman of the Department of Psychiatry, University of Southern California; Allen J. Enelow, M.D., Associate Clinical Professor, Department of Psychiatry, University of Southern California.

Category I Credit of 10 hours will be given for this course. Inquiries should be addressed to: Allen J. Enelow, M.D., Department of Psychiatry, 1934 Hospital Place, Los Angeles 33, California.

Future Meetings

REGIONAL MEETINGS

Winter & Spring, 1961-62

February 20-23, 1962

Colorado State Medical Society
Midwinter Clinical Session
Denver, Colorado

March 1-3, 1962

University of Utah College of Medicine
Postgraduate Course — Obstetrics
Salt Lake City, Utah

March 15-17, 1962

Tenth Annual Cancer Seminar
Arizona Division
American Cancer Society
Phoenix, Arizona

March 26-June 7, 1962

Colorado University Medical School
Postgraduate Course — Surgical Anatomy
Denver, Colorado

April 2-5, 1962

Southwestern Surgical Congress
Albuquerque, New Mexico

April 6-13, 1962

American Academy General Practice Annual
Meeting
Las Vegas, Nevada

April 25-28, 1962

Arizona Medical Association
Scottsdale, Arizona

April 27-28, 1962

Western Colorado Spring Clinic
Grand Junction, Colorado

May 9-10, 1962

Weld County Medical and Surgical Clinics
Greeley, Colorado

May 9-11, 1962

New Mexico Medical Society Annual Meeting
Hobbs, New Mexico

May 14-16, 1962

Fitzsimmons General Hospital MEND
(Medical Education for National Defense)
Symposium
Denver, Colorado

May 29-June 2, 1962

Colorado University Medical School and
Colorado Heart Association 10th Annual
Western Cardiac Conference and American
College of Cardiology
Denver, Colorado

June 27-30, 1962

Idaho State Medical Association
Sun Valley, Idaho



HOBBY HORSE RANCH SCHOOL

A School For Exceptional Children

The Hobby Horse Ranch School is both home and school for a small group of children. It welcomes the child who is mentally retarded and physically handicapped as well as the backward child who suffers no physical handicap.

The Hobby Horse Ranch School is a branch of Fairview School in Fishkill, New York which was established in 1936.

Directors: Blanche C. Lightowler, B.A.
Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.

Terramycin[®]

BRAND OF OXYTETRACYCLINE

Continuing to grow in clinical stature



Continuing to grow in clinical stature

Recent medical literature¹⁻²⁷—adding to an already massive bibliography—continues to document the effectiveness of well-tolerated Terramycin in pediatric, respiratory, and other infections.

Recent bibliography: 1. A.M.A. Council on Drugs, New and Nonofficial Drugs 1961, Philadelphia, Lippincott, 1961, pp. 142-147. 2. Beckman, H.: The Year Book of Drug Therapy, Chicago, Yr. Bk. Pub., 1961, p. 271. 3. Eastman, N. J., and Hellman, L. M.: Williams Obstetrics, ed. 12, New York, Appleton-Century-Crofts, 1961, pp. 845-1035. 4. Keefer, C. S., in Modell, W.: Drugs of Choice 1960-1961, St. Louis, Mosby, 1960, pp. 141, 146, 147. 5. Huang, N. N.: J. Pediat. 59:512, 1961. 6. Smith, R. C. F.: Brit. J. Clin. Practice 15:345, 1961. 7. Asay, L. D., and Koch, R.: New England J. Med. 262:1062, 1960. 8. Berry, D. G., et al.: Lancet 1:137, 1960. 9. Osol, A., et al.: The Dispensatory of the United States of America, ed. 25, Philadelphia, Lippincott, 1960, pp. 953, 1556. 10. Adams, A. R. D.: Brit. M. J. 1:1639, 1960. 11. Jung, R. C., and Carrera, G. M.: Dis. Colon & Rectum 3:313, 1960. 12. De Lamater, J. N.: Am. J. Gastroenterol. 34:130, 1960. 13. Stewart, W. H., et al., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. II, chap. 5, p. 19. 14. Wellman, W. E., and Herrell, W. E., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. I, chap. 44, p. 13. 15. Wenckert, A., and Robertson, B.: Acta chir. scandinav. 120:79, 1960. 16. Alstead, S.: Dilling's Clinical Pharmacology, ed. 20, London, Cassell, 1960, p. 462. 17. Grover, F. W.: Texas J. Med. 57:355, 1961. 18. Gardiner, W. P., and Gomila, R. R., Jr.: Scientific Exhibit, Venereal Disease Seminar, U. S. Public Health Service, Feb. 28-Mar. 3, 1961. 19. Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, 1961. 20. Nathan, L. A.: Scientific Exhibit, 15th Clinical Meet., A.M.A., Denver, Col., Nov. 26-30, 1961. 21. Ullman, A.: Delaware M. J. 32:97, 1960. 22. Lamphier, T. A.: Scientific Exhibit, New York State M. Soc. Meet., New York, May 7-13, 1960. 23. Freier, A.: Paper presented at Michigan Soc. Obst. & Gynec., Detroit, May 3, 1961. 24. Logan, K. M.: Scientific Exhibit, Ann. Meet., Ohio Acad. Gen. Practice, Cincinnati, Sept. 13-14, 1961. 25. Altmeier, W. A., and Wulsin, J. H. (A.M.A. Council on Drugs Report): J.A.M.A. 173:527, 1960. 26. Krol, W. J.: J. Abdom. Surg. 3:78, 1961. 27. Potempa, J.: Med. Klin. 56:352, 1961.

Terramycin[®]
OXYTETRACYCLINE WITH GLUCOSAMINE
PEDIATRIC DROPS **SYRUP**
5 mg./drop (100 mg./cc.) 125 mg./tsp. (5 cc.)

In Brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated. For complete dosage, administration, and precaution information, read package insert before using.

More detailed professional information available on request.

IS IT "VALLEY FEVER" DOCTOR?

FOR INTRADERMAL DIAGNOSES TRY

BioProducts' **NEW** Coccidioidin

PREPARED with nine **9** locally collected and isolated strains of COCCIDIOIDES IMMITIS.

SPECIFICITY in maximum may be expected with BioProducts Coccidioidin, a product of the patients environment.

PACKAGED in one cc. vials containing ten tests (0.1 cc. per test) in the standard 1:100 potency. Also available in 1:10; 1:1000; and 1:10,000.

AVAILABLE through your pharmacy or Rocky Mountain Pharmacal, 1002 East Indian School Road, Phoenix, Telephone CRestwood 7-7611.

Your request on your professional letterhead or prescription form to Rocky Mountain Pharmacal will bring complete information and a sample vial.

January, 1962

BIOPRODUCTS RESEARCH LABORATORIES, INC.
biological & biochemical products through research



Phoenix

Tucson

75A

The cigarette that made the Filter Famous!



It's true. Kent's enormous rise in popularity—with all the attendant magazine and newspaper stories—really put momentum to the trend toward filter cigarettes!

So, Kent is the cigarette that made the filter famous. And no wonder. Kent's famous Micronite filter is made from a pure, all-vegetable material. A specially designed process at the P. Lorillard factory compresses this material into the filter shape and creates an intricate network of tiny channels which refine smoking flavor.

Kent with the Micronite filter refines away harsh flavor . . . refines away hot taste . . . makes the taste of a cigarette mild.

That's why you'll feel better about smoking with the taste of Kent.

© 1961 P. LORILLARD CO.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

For all YOUR DRUG needs-

Phone MAC
ALpin 4-2606
 or
ALpin 2-1573
 In Arizona Since 1920

FAST FREE DELIVERY

MACALPINE'S

THE *Rexall* STORE • 2303 N. 7th ST.

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR
 CONDITIONING FOR YEAR ROUND COMFORT

The Franklin Hospital

Hospital License No. 71
 Registered A.M.A.
 Member A.H.A.

367 No. 21st Avenue
 PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751



Coca-Cola, too, is compatible with a well balanced diet. As a pure, wholesome drink, it provides a bit of quick energy ... brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.




POST-EZE SYSTEMS ARE AVAILABLE FOR:

- ★ ACCOUNTS RECEIVABLE
- ★ ACCOUNTS PAYABLE— PURCHASES
- ★ ACCOUNTS PAYABLE — CASH DISBURSEMENT



Now, small- and medium-size offices can effect the economies of mechanized accounting *without buying machines or employing specialized operators.*

 simplified plans save up to 66% of time, eliminate transcription errors, and keep all records up-to-date and in balance, because: —

ONE writing posts all records

ONE simple proof proves all records

To Learn How you will save up to 66%
(it only takes 10 minutes)

CALL FOR TRAINED REPRESENTATIVE

Alpine 4-6611
3111 N. 29th Avenue
PHOENIX, ARIZONA

MAin 2-2446
604 N. 4th Avenue
TUCSON, ARIZONA



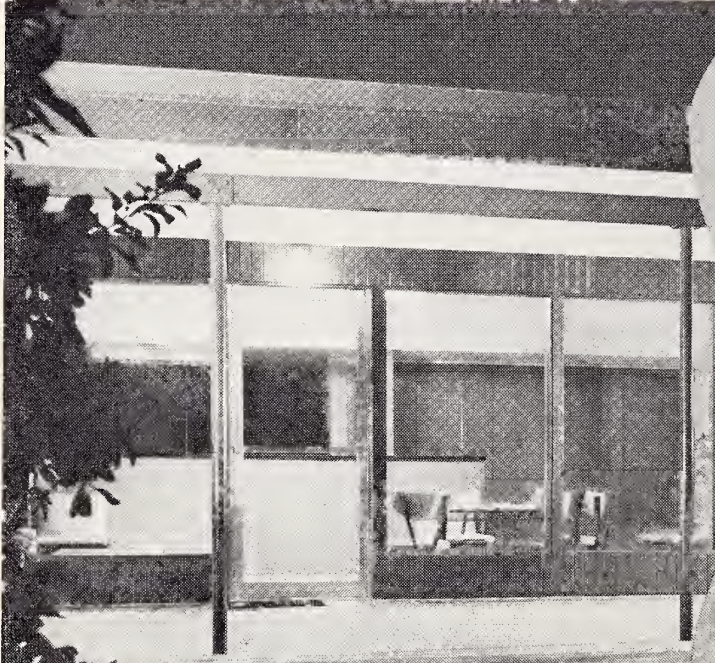
Serving Arizona
Health Needs
Since 1908

Ryan-Evans
DRUG STORES

Phoenix - Tucson - Scottsdale - Maryvale

Glendale - Sunnyslope - Tempe - Globe

Casa Grande - Miami - Wickenburg



**CAMELBACK
PROFESSIONAL
BUILDING**

ROBERT L. BEAL, M.D.

OTTO L. BENDHEIM, M.D.

HAL J. BREEN, M.D.

INEZ P. DUNNING, M.A.

T. RICHARD GREGORY, M.D.

DERALD G. MAY, M.D.

HAROLD E. McNEELY, Ph.D.

ROBERT C. SHAPIRO, M.D.

WILLIS L. STRACHAN, M.D.

IRENE M. JOSSELYN, M.D.

JOHN R. ZELL, M.D.

**5051 NORTH 34th STREET
PHOENIX 18, ARIZONA
AM 4-4111**

*general psychiatry and neurology
child psychiatry
psychoanalysis
clinical psychology
psychiatric social work
and family counselling*



Protection Against Loss Of Income From Accident & Sickness As Well As Hospital Expense Benefits For You And All Your Eligible Dependents.



PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA

Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.

paf

DOUCHE POWDER

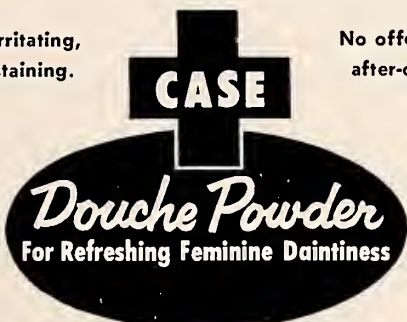
Buffered to control a normal vaginal pH.

P.A.F.'s low surface tension increases penetration into the vaginal rugae and dissolution of organisms including trichomonas and fungus.

P.A.F.'s high surface activity liquifies viscus mucus on vaginal mucosa, releasing accumulated debris in the vaginal tract.

Non-irritating,
non-staining.

No offensive
after-odor.



G. M. Case Laboratories — San Diego, Calif.

YOUR PROFESSIONAL GROUP ACCIDENT AND SICKNESS INSURANCE POLICY

Approved and Recommended by
Your Insurance Committee and
Board of Directors



A Program Designed For
The Members Of

THE ARIZONA MEDICAL
ASSOCIATION, INC.

By The
NATIONAL CASUALTY COMPANY
OF DETROIT



For Complete Information

CONTACT

CHARLES A. DELEEUW

3424 N. Central Ave. — AMherst 6-2403

PIMA COUNTY REPRESENTATIVE

RONALD DEITRICH

136 North Stone Avenue MAin 3-0583

WAYLAND

PRESCRIPTION PHARMACIES

TWO CONVENIENT LOCATIONS

NORTH CENTRAL MEDICAL BLDG.

2021 N. Central

And

PROFESSIONAL BUILDING

13 E. Monroe

Phoenix, Arizona

CITY WIDE DELIVERY

HILLCREST MEDICAL CENTER, INC.

Established 1921

- General Medical
- Orthopedic
- Acute or Chronic
- Post-Operative
- Geriatric
- Convalescent
- Non-Sectarian
- Medical Doctor of your choice

LISTED by American Hospital Association

24 Hr. Professional Nursing — R.N.'s on all shifts.

Phone: MA 3-7591

1501 N. 3rd Ave.

Tucson, Arizona

Alberta M. Lovett, President

Charles H. Schmid, Treasurer

Katharine C. Schmid, Director, Admission-Patient Services

BUTLERS REST HOME

- Bed Patients and Chronics
- Television
- 24 Hour Nursing Care
- Excellent Food
- State Licensed

802 N. 7th St.

Phoenix, Arizona

Telephone AL 3-2592

DISTRICT NO. 1

ARIZONA STATE NURSES ASS'N.

MRS. MARJORIE E. KASUN, R.N.

Registrar

Nurses' Professional Registry

703 Professional Bldg. — Phoenix — AL 4-4151

DOCTORS' CENTRAL DIRECTORY

Helen M. Barrasso, R.N., Director

For Emergencies or in Absence of Your Doctor

CALL EA 7-7471

At Your Service 24 Hours Daily

3029 E. 2nd St.

Tucson, Arizona

"Established 1932"

PHARMACY DIRECTORY

Your Prescription Store

DIERDORF PHARMACY

Phone BR 5-5212

2315 N. 24th St.

Phoenix, Arizona

Milburn F. Dierdorf

In Scottsdale call **Lute's Scottsdale Pharmacy**

For

PRESCRIPTIONS

WH 5-8420 — WH 5-8429

Next to the 1st National Bank

SRUTWA PHARMACIES, INC.

WH 5-3791

Scottsdale Medical Center

218 E. Stetson Drive

Scottsdale, Arizona

LABORATORIES

THE DIAGNOSTIC LABORATORY

*Complete Medical Laboratory Service, X-Ray Diagnosis
Radiation Therapy, Radioactive Isotopes*



DEPARTMENT OF PATHOLOGY

MAURICE ROSENTHAL, M.D.
GEORGE SCHARF, M.D.
SEYMOUR B. SILVERMAN, M.D.
BLAND GIDDINGS, M.D.

DEPARTMENT OF RADIOLOGY

MARCY L. SUSSMAN, M.D.
E. LAWRENCE GANTER, M.D.

Diplomates of the American Boards of PATHOLOGY and RADIOLOGY

1130 E. McDowell Rd.

Phoenix, Arizona

Phone AL 8-1601

Information, Price Lists and Mailing Containers upon request.

Medical Center X-Ray and Clinical Laboratory

1313 North 2nd Street
Phoenix, Arizona
Phone ALpine 8-3484

AND

Professional X-Ray and Clinical Laboratory

510 Professional Bldg.
Phoenix, Arizona
Phone ALpine 3-4105

DIAGNOSTIC X-RAY

X-RAY THERAPY

RADIUM THERAPY

CLINICAL PATHOLOGY

TISSUE PATHOLOGY

ELECTROCARDIOGRAPHY

BASAL METABOLISM

R. Lee Foster, M.D., F.A.C.R., F.A.C.P., Director

Martin L. List, M.D., Radiologist

George A. Gentner, M.D., Radiologist

Diplomates of American Board of Radiology

Lorel A. Stapley, M.D., Consultant Pathologist

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy
American College of Chest Physicians
15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
Fellow, American College of Allergists
Fellow, American Academy of Allergy

31 W. Camelback Road CR 7-3337
Phoenix, Arizona

Pediatric Allergy

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists

322 W. McDowell Rd. PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY

Diplomate of American Board of
Dermatology and Syphilology

Phone Alpine 3-5264
105 W. McDowell Road Phoenix, Arizona

WILLIAM SNYDER, M.D.

Diplomate of the American Board of Dermatology
Diseases of the Skin
Skin Cancer — Cutaneous Allergy
2021 N. Central Ave. — ALpine 3-8383
PHOENIX, ARIZONA

GYNECOLOGY & ENDOCRINOLOGY

JOSEPH B. RADDIN, M.D.

Practice limited to
MEDICAL GYNECOLOGY & ENDOCRINOLOGY
706 Professional Building
15. E. Monroe — Phoenix, Arizona
Phone ALpine 2-3577

MALIGNANT DISEASE

JAMES M. OVENS, M.D.

F.A.C.S .F.I.C.S.

Diplomate American Board of Surgery
Cancer and Tumor Surgery
X-ray and Radium Therapy

333 W. Thomas Road Phone 279-7301
Phoenix 13, Arizona

A. L. LINDBERG, M.D.

Neoplastic Diseases
Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona
Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D., F.A.C.S.* — A. L. Swenson, M.D.,
F.A.C.S.* — Ray Fife, M.D., F.A.C.S.* — Sidney L. Stovall, M.D.,
F.A.C.S.* — Thomas H. Taber, Jr., M.D., F.A.C.S.*
Robert A. Johnson, M.D.

*Diplomates of the American Board of Orthopedic Surgery.

2620 No. 3rd Street — Phoenix, Arizona — CR 7-6211

PHYSICIANS' DIRECTORY

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S

Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

PROCTOLOGY

WALLACE M. MEYER, M.D. PROCTOLOGY

Park Central Medical Bldg.
Phone CR 4-5632
550 W. Thomas Road — 216 Patio B
Phoenix, Arizona

JAMES T. JENKINS, M.D.

Fellow American Proctologic Society
Fellow American College of Surgeons
Fellow International College of Surgeons
Practice Limited to Diseases of the Anus, Rectum
and Colon
2021 N. Central Ave.
Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

CARL BREITNER, M.D.

Psychiatry
AL 2-9108
1515 N. 9th St. Phoenix, Arizona

LEO RUBINOW, M.D.

PSYCHIATRY
AM 6-0630
224 E. Thomas Rd. Phoenix, Arizona

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.

SPEECH PATHOLOGIST
Advanced Member
American Speech and Hearing Association
Diagnoses Speech and Swallowing Therapy
240 W. Osborn Rd. Phone AM 5-0071
Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P. MARTIN L. LIST, M.D., GEORGE A. GENTNER, M.D.

Diplomates of American Board of Radiology
Diagnostic Roentgenology, X-Ray and Radium Therapy
510 Professional Bldg. 1313 N. Second St.
Phone Alpine 3-4105 Phone Alpine 8-3484
Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.

Diplomate of American Board of Radiology

E. LAWRENCE GANTER, M.D.

Diplomate of American Board of Radiology
DIAGNOSTIC RADIOLOGY
THERAPEUTIC RADIOLOGY
RADIOISOTOPES
1130 E. McDowell Rr.
Telephone Alpine 8-1601 Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.

123 South Stone Avenue
Tucson, Arizona
Office Phone MA 2-3371 Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.

GENERAL SURGERY
Certified by the American Board of Surgery
550 W. Thomas Road
Phone CRestwood 4-2081
Phoenix, Arizona

INDEX TO ADVERTISERS

Abbott Laboratories	9A, 10A, 48A, 49A	National Casualty Co.	79A
Ames Inc.	Inside Back Cover	Nurses Directory	80A
Bristol Laboratories	28A, 29A	Organon, Inc.	40A
Burroughs-Wellcome Co., Inc.	54A, 55A	Parke-Davis & Co.	Inside Front Cover, 1A
Butlers Rest Home	80A	PBSW Supply Co.	84A
Camelback Hospital	66A	Pfizer Laboratories	73A, 74A
Camelback Professional Building	78A	Pharmacy Directory	80A
Case, G. M., Laboratories, Inc.	79A	Physicians Casualty Association	79A
Coca Cola Co.	77A	Robins, A. H. & Co.	8A, 27A, 36A, 58A
Doctors Directory	80A	Roche Laboratories	Back Cover
Endo Laboratories	52A	Rocky Mountain Pharmaceuticals	75A
Franklin Hospital	77A	Roerig, J. B. & Co.	53A
Glenbrook Laboratories	26A	Ryan Evans Drugs	78A
Hillcrest Medical Center	80A	Schering Corp.	31A, 47A
Hobby Horse Ranch School	72A	Schieffelin & Co.	72A
Lederle Laboratories ..	4A, 5A, 22A, 33A, 38A, 39A	Searle, G. D. & Co.	30A
Lilly, Eli & Co.	Front Cover, 32A	Smith, Kline & French Laboratories ...	50A, 51A
Loftins Business Forms	78A	Squibb, E. R. & Sons, Co.	12A, 34A, 35A
Lorillard Co.	76A	Upjohn, The, Co.	24A, 25A, 56A
MacAlpine Drugs	77A	Valley National Bank	21A
Medical & Dental Finance Bureau	18	Wallace Laboratories	23A, 67A
		Wayland Drugs	80A
		White Angel Inn	11A
		Winthrop Laboratories	2A, 68A



PBSW

OFFICE EQUIPMENT CENTER

THE NEW ROYAL ELECTRIC

The new Royal Electric design is more practical and functional than ever. A computer-like keyboard gives the typist greater convenience, efficiency and speed. The new carriage unit reacts with split-second accuracy and all controls are centralized on top within easy reach of the operator. Only Royal offers so many convenient and time-saving extras such as Magic Margin, Line Meter, Twin-Pak Ribbon and a complete selection of automatic repeat controls.

The new Royal has the lightest, most uniform touch of any electric. It can be varied to suit each typist. This Touch Control plus Royal's uniform key dip on each row promotes better typing rhythm, lessens finger fatigue and increases speed.

The new Royal produces printwork unmistakably superior to that of any other electric. The result being: 1. a more clearly etched letter; 2. a more uniform inking of each character; 3. a more accurate alignment of letters and words.

801 W. Indian School Rd. • Phoenix, Ariz.
AM 4-4141

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO



Volume 19

Number 2

February, 1962

U.C. MEDICAL CENTER LIBRARY

FEB 27 1962

San Francisco, 22

Efficacy of propionyl erythromycin and its lauryl sulfate salt in 803 patients with common bacterial respiratory infections.

Tonsillitis*

92.3%

235 patients

Acute Streptococcus Pharyngitis*

88.3%

317 patients

Bronchitis* (Bacterial Complications)

95.3%

85 patients

Pneumonia*

88.6%

166 patients

*References available on request.

The usual dosage for infants and children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. For adults and children over fifty pounds, the usual dosage is 250 mg. every six hours. In more severe or deep-seated infections, these dosages may be doubled.

Available as: Pulvules®—125 and 250 mg. †; Oral Suspension—125 mg. † per 5-cc. teaspoonful; and Drops—5 mg. † per drop.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Ilosone® (erythromycin estolate, Lilly) (propionyl erythromycin ester lauryl sulfate)

†Base equivalent

Ilosone®
works
to
speed
recovery



232539

when urinary
tract
infections
present
a therapeutic
challenge...

CHLOROMYCETIN[®]

(chloramphenicol, Parke-Davis)

Often recurrent...often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.^{1,2} In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain *Proteus* species, the micrococci and the enterococci."¹ CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.³ In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.⁴⁻⁶

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals[®] of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

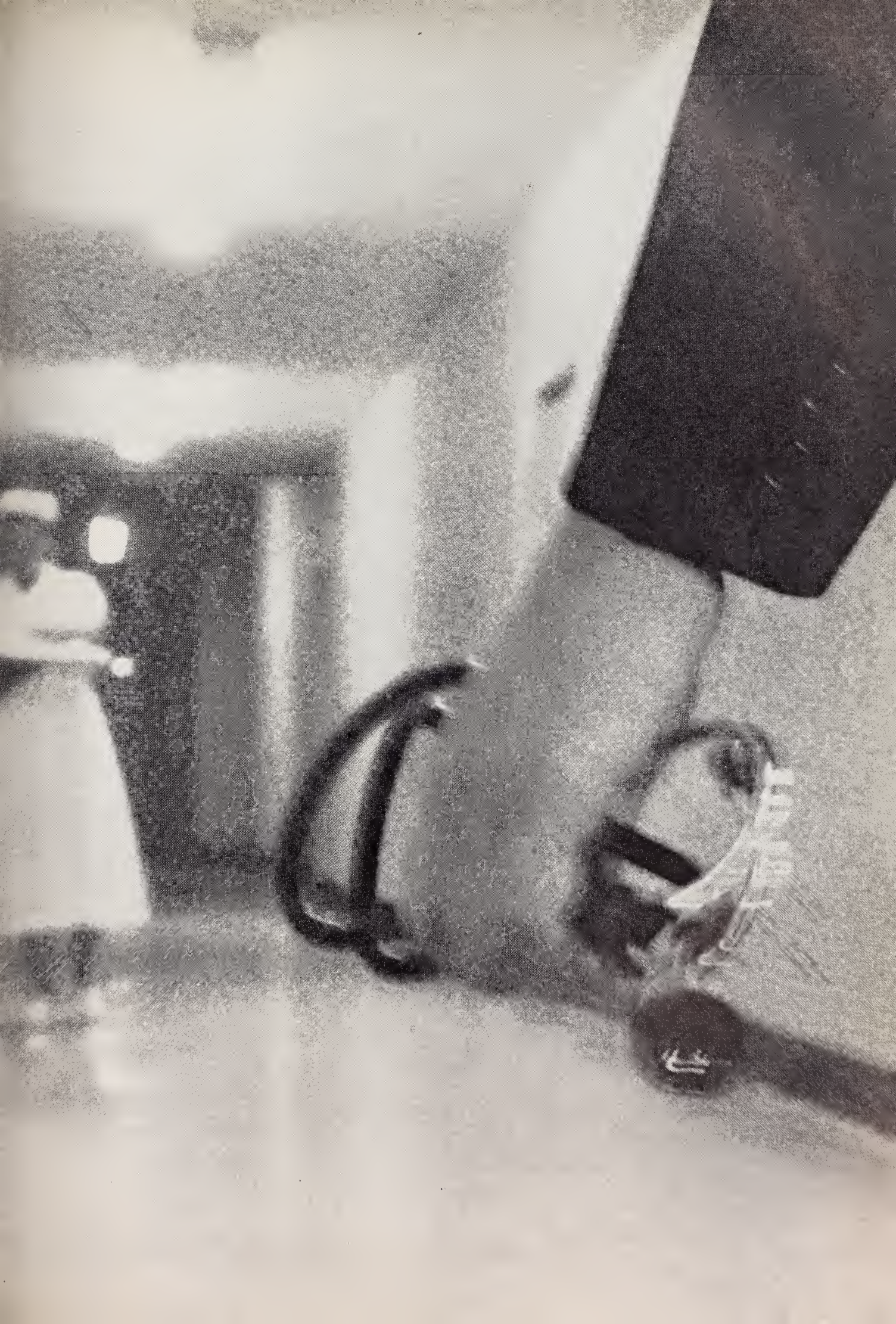
Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. **Precautions:** It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Malone, F. J., Jr.: *Mil. Med.* 125:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* 34:187, 1959. (3) Ullman, A.: *Delaware M. J.* 32:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* 108:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* 10: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* 11:392, 1960.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

68951



When it's more like "grippe" or "flu" than a simple cold, but an antibiotic is not indicated... prescribe NEW WIN-CODIN* Tablets



New Win-Codin tablets provide greater symptomatic relief from influenza, colds and sinusitis than do simple analgesic-antihistamine combinations. New Win-Codin tablets contain a full complement of the most effective agents available to relieve general discomfort, bring down fever and lessen congestive symptoms.

Each tablet contains:

Codeine phosphate 15 mg.—to relieve local and generalized pain and control dry cough

Neo-Synephrine® 10 mg.—to shrink nasal membranes and open sinus ostia

Acetylsalicylic acid 300 mg. (5 grains)—to reduce fever and relieve aching

Chlorpheniramine maleate 2 mg.—an antihistamine to shrink engorged membranes and lessen rhinorrhea

Ascorbic acid (vitamin C) 50 mg.—to increase resistance to infections†

New Win-Codin tablets will bring more comfort to many patients suffering from severe colds, influenza or sinusitis.

Average dose: Adults, 1 or 2 tablets three times daily; children 6 to 12 years, from ½ to 1 tablet three times daily.

Available in bottles of 100 (Class B narcotic).

*Trademark †For persons with vitamin C deficiency
Neo-Synephrine (brand of phenylephrine), trademark reg. U. S. Pat. Off.

JCR19

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

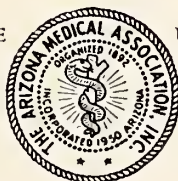
Winthrop LABORATORIES
New York 18, N. Y.

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

February, 1962



Vol. 19, No. 2

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

MEDICAL ECONOMICS COMMITTEE MEETING — Minutes — Nov. 19, '61.....	13A
COMMITTEE ON NARCOTIC STUDY MEETING — Minutes — Nov. 29, '61	19A
PROFESSIONAL LIAISON COMMITTEE MEETING — Minutes — Nov. 12, '61.....	20A

ORIGINAL ARTICLES

DIAGNOSTIC USE OF RADIOISOTOPES	19
Charles A. Owen, Jr., M.D.	
MANAGEMENT OF THOSE ACHING JOINTS	26
L. Maxwell Lockie, M.D.	
PROPHYLACTIC AND THERAPEUTIC MEASURES IN STRICTURES OF THE COMMON DUCT	29
Warren H. Cole, M.D.	
KNOW ALL THINGS — SERVE ALL PEOPLE	34
Pearl Parvin Coulter	
ANURIA ASSOCIATED WITH SEVERE GALLBLADDER DISEASE ATTACK	40
L. Manoil, M.D.	

PRESIDENT'S PAGE

WHY? WHO? — Leslie B. Smith, M.D.	47A
--	-----

EDITORIALS

PREMARITAL EXAMINATIONS IN ARIZONA	53A
A. C. van Ravenswaay, M.D.	
CLOSED CHEST CARDIAC MASSAGE	54A
Allan B. Carter, M.D.	
EDITOR'S NOTES	54A
EXCELLENCE	56A
Darwin W. Neubauer, M.D.	

TOPICS OF CURRENT MEDICAL INTEREST

QUARRELING AND QUARANTINE — OR THE BISBEE-DOUGLAS FEUD	65A
Dry Gulch Jake (John W. Kennedy, M.D.)	
ARIZONA POISONING CONTROL INFORMATION CENTER — Aspirin Poisoning....	66A
AMBULATORY TREATMENT OF TUBERCULOSIS — O. J. Farness, M.D.....	68A
PIMA COUNTY TUBERCULOSIS REGISTER	68A
MEDICAL COURT CASES (Dodds vs. Stellar) — Howard Newcomb Morse	69A
BOARD OF MEDICAL EXAMINERS (October 21, 1961)	71A
NATIONAL MEDICAL FOUNDATION FOR EYE CARE — A. K. Hansen, M.D.....	72A
FELLOWS INDUCTED, AMERICAN COLLEGE OF SURGEONS	73A

FUTURE MEDICAL MEETINGS AND POSTGRADUATE EDUCATION

TENTH ANNUAL CANCER SEMINAR	81A
ARMA — 71st ANNUAL MEETING	81A
SIXTEENTH ANNUAL SYMPOSIUM ON FUNDAMENTAL CANCER RESEARCH	82A
SOUTHWEST SURGICAL CONGRESS — 14th ANNUAL MEETING	82A
REGIONAL MEETINGS — WINTER & SPRING, 1962	83A

DIRECTORY

OFFICERS AND COMMITTEES	6A
SOCIEDAD MEDICA D ESTADOS UNIDOS DE NORTE AMERICA Y MEXICO.....	8A
MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO	8A
WOMAN'S AUXILIARY	8A
INDEX TO ADVERTISERS	90A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription \$5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.

blood pressure approaches normal more readily, more safely....simply with **Salutensin**[®] (hydroflumethiazide, reserpine, protoveratrine A—antihypertensive formulation)

Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"¹) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents²⁻⁸ provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron[®] (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide⁹; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide/rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron[®] (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

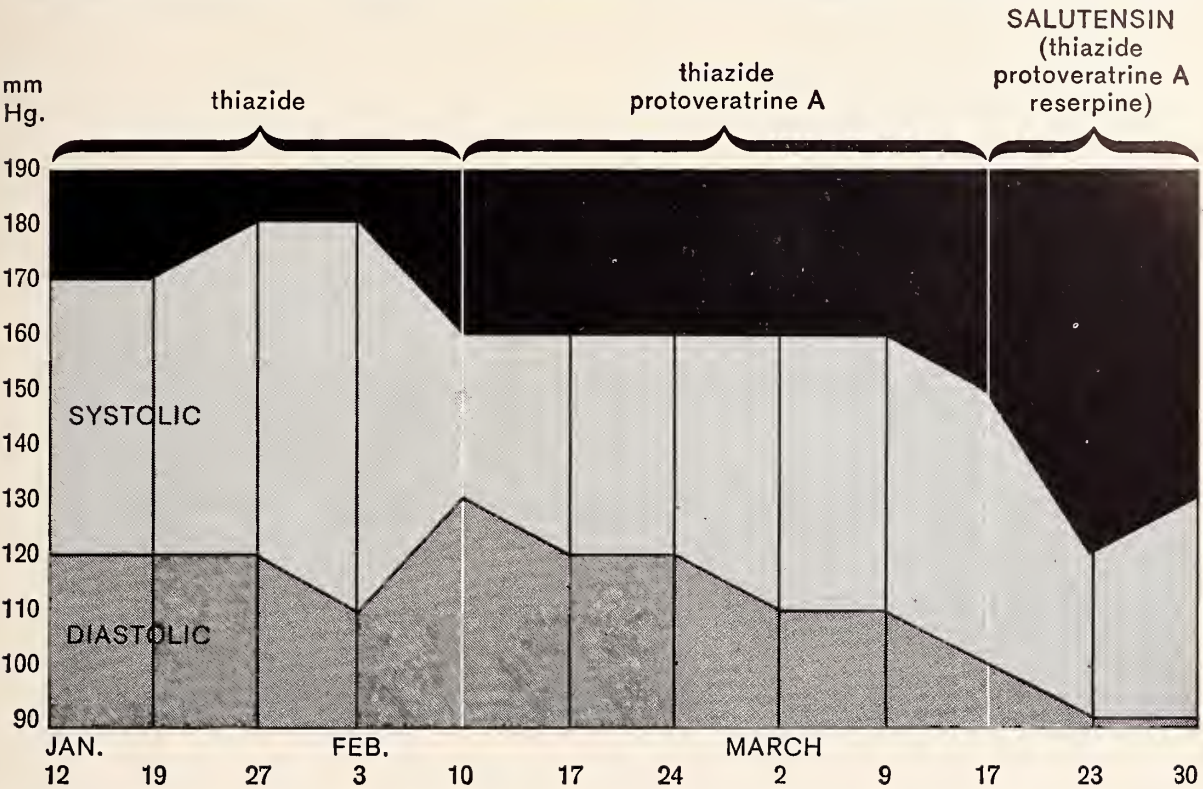
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide- rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

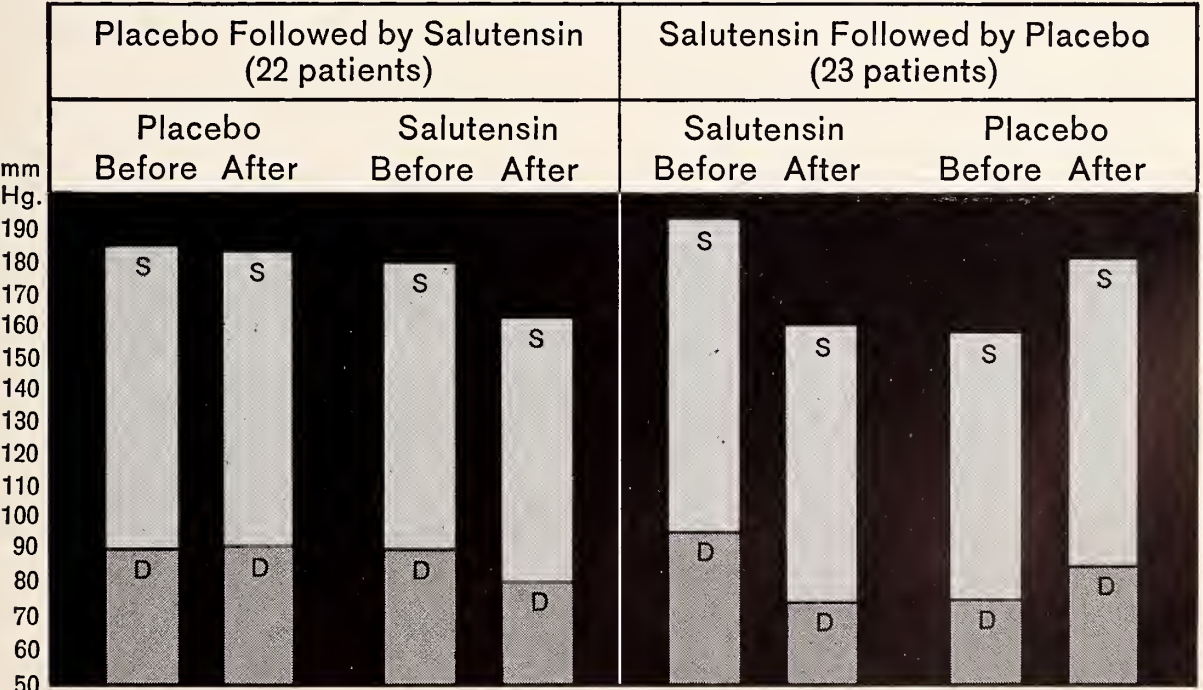
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A “DOUBLE BLIND” CROSSOVER STUDY

Mean Blood Pressures—Systolic (S) and Diastolic (D)



In this “double blind” crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.



Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.
Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Leslie B. Smith, M.D. President
1130 E. McDowell Rd., Phoenix, Arizona
Clarence E. Yount, Jr., M.D. President-elect
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D. Vice President
116 N. Tucson Blvd., Tucson, Arizona
Paul L. Singer, M.D. Secretary
1313 N. Second Street, Phoenix, Arizona
Arthur V. Dudley, Jr., M.D. Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D. Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D. Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D. Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Orin J. Farness, M.D. Alternate Delegate to AMA
1535 N. Tucson Blvd., Tucson, Arizona
Dermont W. Melick, M.D. Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D. Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D. Central District
710 Professional Bldg., Phoenix, Arizona
W. Albert Brewer, M.D. Central District
1116 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D. Central District
926 E. McDowell Rd., Phoenix, Arizona
Wallace A. Reed, M.D. Central District
2021 N. Central Ave., Phoenix, Arizona
Noel G. Smith, M.D. Central District
3614 N. 15th Ave., Phoenix, Arizona
Leo L. Tuveson, M.D. Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D. Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D. Northwestern District
434 West Gurley Street, Prescott, Arizona
D. G. Moody, M.D. Southeastern District
101 Terrace Street, Nogales, Arizona
Earl R. Baldwin, M.D. Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D. Southern District
1613 N. Tucson Blvd., Tucson, Arizona
John R. Schwartzmann, M.D. Southern District
2415 E. Adams Street, Tucson, Arizona
James T. O'Neil, M.D. Southwestern District
113 West 2nd Street, Casa Grande, Arizona

DIRECTOR AT LARGE

Lindsay E. Beaton, M.D. Past President
1650 N. Campbell Ave., Tucson, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1961

APACHE: Jerry T. Clifton, M.D., President, Box 758, Show Low, Arizona; Arnold H. Dysterheft, M.D., Secretary, McNary Hospital, McNary, Arizona.
COCHISE: Benjamin C. Rothman, M.D., President, P. O. Box 1192, Bisbee, Arizona; William W. McKinley, Jr., M.D., Secretary, P. O. Box 1192, Bisbee, Arizona.
COCONINO: James B. Wenzel, M.D., President, 1303 North Beaver St., Flagstaff, Arizona; John R. Caskey, M.D., Secretary, 2725 E. Lakin Drive, Flagstaff, Arizona.
GILA: Bert E. Lambrecht, M.D., President, Box 1837, Miami, Arizona; Bernard J. Collopy, M.D., Secretary, Box 342, Miami, Arizona.
GRAHAM: Frederick W. Knight, M.D., President, 618 Central Avenue, Safford, Arizona; Bruce N. Curtis, M.D., Secretary, 618 Central Avenue, Safford, Arizona.
GREENLEE: Charles B. Daniell, M.D., President, Morenci Hospital, Morenci, Arizona; Leopoldo Dulawa, M.D., Secretary, Morenci Hospital, Morenci, Arizona.
MARICOPA: Robert A. Price, M.D., President, 3602 N. 15th Avenue, Phoenix, Arizona; Howard C. Lawrence, M.D., Secretary, 2021 North Central Avenue, Phoenix, Arizona. Society Office: 2025 North Central Ave., Phoenix, Arizona.
MOHAVE: Walter Brazie, M.D., President, Masonic Building, Kingman, Arizona; John J. Standifer, M.D., Secretary, 412 East Oak Street, Kingman, Arizona.
NAVAJO: Harry S. Beckwith, M.D., President, 101 S. Williamson Street, Winslow, Arizona; Donald F. DeMarse, M.D., Secretary, Box 397, Holbrook, Arizona.
PIMA: D. J. Heim, M.D., President, 116 North Tucson Boulevard, Tucson, Arizona; Elliott E. Stearns, Jr., M.D., Secretary, 2442 East Elm Street, Tucson, Arizona.
PINAL: James B. Tucker, M.D., President, 703 N. Olive Street, Casa Grande, Arizona; James H. Boyd, M.D., Secretary, 291 West Wilson Avenue, Coolidge, Arizona.
SANTA CRUZ: Delmer R. Mock, M.D., President, 309 Duquesne Avenue, Patagonia, Arizona; Charles S. Smith, M.D., Secretary, Gebler Building, Nogales, Arizona.
YAVAPAI: Richard G. Hardenbrook, M.D., President, 316 Grove Avenue, Prescott, Arizona; William R. Shepard, M.D., Secretary, 506 West Gurley Street, Prescott, Arizona.
YUMA: William J. Nelson, M.D., President, 450 West 23rd Street, Yuma, Arizona; Abe I. Podolsky, M.D., Secretary, 1601 Fifth Avenue, Yuma, Arizona.

COMMITTEES - 1961-62

NOTE: The President, President-elect and Secretary are ex-officio members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE: Paul B. Jarrett, M.D., Chairman (Phoenix); Walter Brazie, M.D. (Kingman); Frank A. Shellenberger, Jr., M.D. (Tucson); Paul M. Singer, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Donald K. Buffmire, M.D., Chairman (Phoenix); Preston T. Brown, M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Carl H. Gans, M.D. (Morenci); Roland V. Murphy, M.D. (Tucson); Paul L. Singer, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Arthur V. Dudley, Jr., M.D., Chairman (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson).

EXECUTIVE COMMITTEE: Leslie B. Smith, M.D., President, Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Lindsay E. Beaton, M.D., Past-President, Chairman (Tucson); Carlos C. Craig, M.D. (Phoenix); Francis M. Findlay, M.D. (San Manuel); John F. Stanley, M.D. (Yuma); Oscar W. Thoeny, M.D. (Phoenix); Hugh C. Thompson, Jr., M.D. (Tucson); Florence B. Yount, M.D. (Prescott).

HISTORY & OBITUARIES COMMITTEE: John W. Kennedy, M.D., Chairman (Phoenix); Harold W. Kohl, M.D., (Tucson); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podolsky, M.D. (Yuma); Howell S. Randolph, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: John H. Ricker, M.D., Chairman (Phoenix); John F. Currin, M.D. (Flagstaff); Juan E. Fonseca, M.D. (Tucson); Oscar W. Friske, M.D. (Ajo); Charles P. Neumann, M.D. (Tucson); Robert W. Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Co-Chairman (Phoenix); MacDonald Wood, M.D., Co-Chairman (Phoenix); Derrill B. Manley, M.D. (Phoenix); John S. Carlson, M.D. (Nogales); Ben P. Frissell, M.D. (Phoenix); Paul B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); William B. Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D., Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix); Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: W. Albert Brewer, M.D., Chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: Wallace A. Reed, M.D., Chairman (Phoenix); Jack E. Brooks, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson); Maurice Rosenthal, M.D. (Phoenix); George A. Spikes, M.D. (Douglas).

PROCUREMENT & ASSIGNMENT COMMITTEE: Joseph M. Greer, M.D., Chairman (Phoenix); Robert N. Class, M.D. (Tucson); John F. Currin, M.D. (Flagstaff); Ruland W. Husong, M.D. (Phoenix); Robert M. Matts, M.D. (Yuma); Joseph P. McNally, M.D. (Prescott).

PROFESSIONAL COMMITTEE: Robert B. Leonard, M.D., Chairman (Phoenix); James D. Alway, M.D. (Phoenix); Otto L. Bendheim, M.D. (Phoenix); W. Albert Brewer, M.D. (Phoenix); Orin J. Farness, M.D. (Tucson); Ray Fife, M.D. (Phoenix); Richard B. Johns, M.D. (Phoenix); Howard W. Kimball, M.D. (Phoenix); Henry P. Limbacher, M.D. (Tucson); George G. McKhann, M.D. (Phoenix); Herman S. Rhu, M.D. (Tucson); Paul J. Slosser, M.D. (Yuma); Charles A. L. Stephens, M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Ben B. Frissell, M.D., Chairman (Phoenix); Ernest A. Born, M.D. (Prescott); Clyde W. Kurtz, M.D. (Phoenix); William G. Payne, M.D. (Tempe); Harold J. Rowe, M.D. (Tucson); Delbert L. Secrist, M.D. (Tucson); Hugh M. Smith, M.D. (Tucson); Noel G. Smith, M.D. (Phoenix); Albert G. Wagner, M.D. (Phoenix); Roy O. Young, M.D. (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roland F. Schoen, M.D., Chairman (Casa Grande); Robert H. Bullington, M.D. (Phoenix); Howard W. Finke, M.D. (Superior); Charles H. Finney, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Ralph T. Irwin, M.D. (Yuma); Paul B. Jarrett, M.D. (Phoenix); John F. Kahle, M.D. (Flagstaff); J. Edwin Keppel, M.D. (Mesa); Clarence H. Kuhlman, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Clarence L. Robbins, M.D. (Tucson); Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Editor-in-Chief, Chairman (Tucson); R. Lee Foster, M.D. (Phoenix); John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Richard O. Flynn, M.D., Co-Chairman (Tempe); Clarence E. Yount, Jr., M.D., Co-Chairman (Prescott); James E. Brady, Jr., M.D. (Tucson); Richard E. H. Duisberg, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Richard B. Johns, M.D. (Phoenix); Fred H. Landeen, M.D. (Tucson); William H. Lyle, M.D. (Yuma); Arthur R. Nelson, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Edward Sattenspiel, M.D. (Phoenix); Roland F. Schoen, M.D. (Casa Grande); John R. Schwartzmann, M.D. (Tucson); William B. Steen, M.D. (Tucson).

Fontana and Edwards — Congenital Cardiac Disorders

*A Review of 357 Cases
Studied Pathologically*

New! This volume will reveal vital aspects of congenital cardiac diseases which will aid you in making prognoses and in making the differential diagnosis for a patient suspected of having a cardiac malformation. It is a significant statistical study of the natural history of congenital cardiac diseases, based on necropsy review of 357 cases. The study covers every case at the Mayo Clinic in a 34-year period plus 101 cases from outside sources. You'll find accurate information on: *frequency of occurrence; longevity; distribution on the basis of sex; causes of death of persons having cardiovascular malformations; and the frequency of occurrence of bacterial endocarditis and cerebral abscess among people with these malformations.*

By ROBERT S. FONTANA, M.D., M.S. (Med.), Consultant, Section of Medicine, Mayo Clinic, Instructor in Medicine, Mayo Foundation Graduate School; and JESSE E. EDWARDS, M.D., Director of Laboratories, Charles T. Miller, Hospital, St. Paul, Minnesota, Clinical Professor of Pathology School of Medicine, University of Minnesota, formerly Consultant, Section of Pathologic Anatomy, Mayo Clinic. About 384 pages, 6" x 9¼". About \$12.50.
New — Ready March!

Williams —

Textbook of Endocrinology

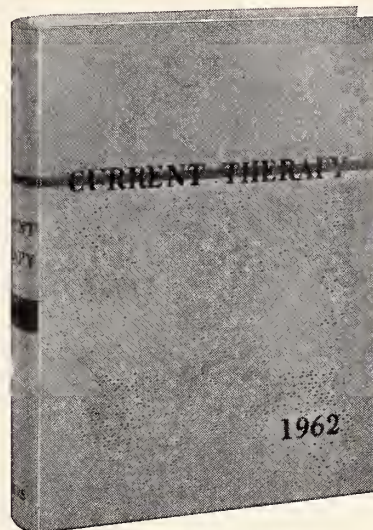
Stresses role of hormones in metabolism

New (3rd) Edition! Here is the most complete source of information available today on endocrinology and metabolism. It describes not only the various glandular disorders, but also the influence of the endocrines on various aspects of metabolism, inflammation, and cancer. So much new material has been added that this is virtually a new book. Completely new chapters cover: *Genetics and endocrinology—Disorders in sex differentiation—Hypoglycemia and hypoglycemosi—Hormones and cancer—Lipid metabolism and lipopathies—Effects of hormones on protein metabolism—Effects of hormones on water and electrolyte metabolism—The pineal.* Many new drugs are evaluated. Mechanisms of action, advantages and disadvantages are described.

By 21 AMERICAN AUTHORITIES. Edited by ROBERT H. WILLIAMS, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School. 1204 pages, 6½" x 9¾", with 333 illustrations and 103 tables. About \$20.00.

New (3rd) Edition—Just Ready!

Today's Best Treatments



1962 Current Therapy

Here are the surest, most effective treatments known to medical science today for every disease you are likely to encounter. New and important changes in treatment for hundreds of diseases are detailed—diseases you may well be called on to treat within the year. Each is written specifically for *1962 Current Therapy* by an authority who is using it today.

This volume represents an extensive revision. Nearly 75% of the articles are changed in a significant manner. New or drastically revised subjects include: *Light Sensitivity and Sunburn—Pruritus Ani and Vulvae—Headache of Convulsive Equivalent Origin or Due to Intracranial Disease—Intrapartum and Postpartum Hemorrhage—Care of the Premature—External Cardiac Massage for Cardiac Arrest.*

Among the 233 completely rewritten articles are: *Treatment of Staphylococcus Pneumonia—Treatment of Staphylococcus Endocarditis—Vinblastine in Therapy of Hodgkin's Disease—Current Use of Antibiotic Drugs in Treatment of Bacterial Infections (given throughout the book)—Live Virus Vaccine Poliomyelitis Prevention—Use of Tranquilizers and Antidepressive Drugs in the Psychoses.*

By 307 AMERICAN AUTHORITIES Selected by a Special Board of Consultants. Edited by HOWARD F. CONN, M.D. About 792 pages, 8½" x 11". About \$12.50. *New—Just Ready!*

Order from W. B. SAUNDERS COMPANY

West Washington Square
Philadelphia 5

Please send me the following books and charge my account:

- ☐ Fontana & Edwards' Congenital Cardiac Disorders, about \$12.50
- ☐ Williams' Textbook of Endocrinology, about \$20.00
- ☐ 1962 Current Therapy, about \$12.50

Name _____

Address _____



SJG-2-62

**WOMAN'S AUXILIARY TO THE ARIZONA MEDICAL
ASSOCIATION — 1961-62 Board Members**

PresidentMrs. Ian M. Chesser (Lu)
414 N. Country Club Road, Tucson, Arizona

President-ElectMrs. Frederick W. Knight (Mary)
618 Central Avenue, Safford, Arizona

1st Vice PresidentMrs. Clare W. Johnson (Mary Ann)
(Organization and Membership Chairman)
318 West Lawrence Road, Phoenix 13, Arizona

2nd Vice PresidentMrs. John Kahle (Rosemary)
(Program Chairman)
2412 N. Talkington, Flagstaff, Arizona

TreasurerMrs. Herbert D. Welsh (Lynn)
Route 8, Box 18, Tucson, Arizona

Recording SecretaryMrs. Robert G. Delph (Grace)
4 West 'D' Avenue, Glendale, Arizona

Corresponding Secretary ..Mrs. Bernard W. Simons, Jr. (Marjorie)
3423 East 4th St., Tucson, Arizona

Director (1 year)Mrs. Robert H. Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona

Director (1 year)Mrs. Robert Keller (Maren)
1229 Fifth Avenue, Safford, Arizona

Director (2 years)Mrs. William D. Nelson, Jr. (Ellen)
2808 Vista Lane, Yuma, Arizona

STATE COMMITTEE CHAIRMEN — 1961-62

American Medical Education FundMrs. Max Costin (Kay)
2648 E. Fourth Street, Tucson, Arizona

BulletinMrs. B. E. Lambrecht (Lila)
Box 1837, Miami, Arizona

By-LawsMrs. Jesse D. Hamer (Clarice)
1819 North 11th Avenue, Phoenix 7, Arizona

ChaplainMrs. W. Stanley Kitt (Abbie)
2043 E. Fourth Street, Tucson, Arizona

Community ServiceMrs. Thomas Rowley (Barbara)
114 South Miller Street, Mesa, Arizona

ConventionMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

Civil DefenseMrs. Paul Jarrett (Beverly)
501 East Pasadena, Phoenix 12, Arizona

FinanceMrs. Seymour I. Shapiro (Arline)
5433 E. 8th Street, Tucson, Arizona

Health CareersMrs. Earl R. Baldwin (Betty)
3320 North Martin Avenue, Tucson, Arizona

HistorianMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

LegislationMrs. Shaw McDaniel (Eleanor)
114 East Tuckey Lane, Phoenix 12, Arizona

Mental HealthMrs. John T. Clymer (Eloise)
201 West Flynn Lane, Phoenix 13, Arizona

NominatingMrs. Robert Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona

ParliamentarianMrs. John Eisenbeiss (Lucile)
99 West Northview, Phoenix 21, Arizona

Publications (Newsletter)Mrs. Hubert R. Estes (Mickie)
6911 Soyuluna Place, Tucson, Arizona

SafetyMrs. C. Selby Mills (Vivian)
1844 E. Keim Drive, Phoenix 16, Arizona

Student Nurse Loan Fund.....Mrs. Juan Fonseca (Virginia)
2505 Indian Ridge Drive, Tucson, Arizona

Workshop AdvisorMrs. Hiram D. Cochran (Mary)
35 Camino Espanol, Tucson, Arizona

COUNTY PRESIDENTS — 1961-62

Coconino CountyMrs. James Wenzel (Nancy)
2143 N. Navajo Drive, Flagstaff, Arizona

Gila CountyMrs. Charles Bejarano
1048 Adonis Avenue, Miami, Arizona

Maricopa CountyMrs. Richard B. Johns (Ruth)
508 W. Rose Lane, Phoenix 13, Arizona

Pima CountyMrs. Frederick J. Hirsch (June)
5817 E. Fourth Street, Tucson, Arizona

Yavapai CountyMrs. Donald Merkle (Helena)
810 Norris Road, Prescott, Arizona

Yuma CountyMrs. Ellis Browning (Olive)
2200 16th Place, Yuma, Arizona

**SOCIEDAD MEDICA DE ESTADOS UNIDAS DE
NORTEAMERICA Y MEXICO
MEDICAL SOCIETY OF THE UNITED STATES & MEXICO**

PresidentDr. Juan E. Fonseca
601 N. Wilmot, Tucson, Arizona

President-ElectDr. Eduardo Contreras Reyna
Marsella 125 Norte, Guadalajara, Jal., Mexico

Vice-PresidentDr. Robert E. Hastings
1014 N. Country Club Road, Tucson, Arizona

Secretary for the United StatesDr. Charles Kalil
200 East Monterey Way, Phoenix, Arizona

Secretary for MexicoDr. Fausto Zeron Medina
Avenida Alemania No. 535, Guadalajara, Jal., Mexico

Treasurer for the United StatesDr. Lucy Verneti
2021 N. Central Avenue, Phoenix, Arizona

Treasurer for MexicoDr. Eduardo Gonzalez Murguia
Juarez 673, Guadalajara, Jal., Mexico

Exec. Secy for United StatesMr. Byron Browder
3008 E. 6th St., Apt. D., Tucson, Arizona

Exec. Secretary for MexicoMr. Alfredo Patron
Mazatlan, Sinaloa, Mexico

**COORDINATING COMMITTEE
COMITE COORDINATOR**

Dr. Harry E. Thompson
Dr. Hector Gonzalez Guevara
Dr. Ignacio Chavez
Dr. W. R. Manning



Going home for the build-up

... AND PART OF THE BUILD-UP WILL BE SURBEX-T®

It's good to be going home—in more ways than one. Now, he can take food again, and Surbex-T has replaced parenterals. Each Filmtab combines therapeutic amounts of the B-complex with 500 mg. of C—the most concentrated dosage of ascorbic acid available in a product of this type.

Your patients get the potency of an injectable. Yet, dosage is in an easy-to-take oral form.

Thanks to Filmtab coatings, tablets are up to 30% smaller and *much* easier to swallow. Unpleasant vitamin odors and aftertastes are sealed inside the Filmtab. And, as no water is used in the Filmtab process, potency is assured for a longer time.



202075

Each Filmtab® Surbex-T represents:

Thiamine Mononitrate (B ₁).....	15 mg.
Riboflavin (B ₂).....	10 mg.
Nicotinamide.....	100 mg.
Pyridoxine Hydrochloride.....	5 mg.
Cobalamin (Vitamin B ₁₂).....	4 mcg.
Calcium Pantothenate.....	20 mg.
(as calcium pantothenate racemic)	
Ascorbic Acid	500 mg.
(as sodium ascorbate)	
Desiccated Liver, N. F.....	75 mg.
Liver Fraction 2, N. F.....	75 mg.
Supplied in bottles of 100, 500, and 1000	

FILMTAB—FILM-SEALED TABLETS, ABBOTT

SURBEX-T Therapeutic dosage of the B-complex *plus 500 mg. of vitamin C*



...you can bet they're not from Abbott

Vitamin products generally taste fine going down, but regurgitative effects may often be downright unpleasant. While this seems like a minor problem, bad aftertaste can discourage patients from continuing needed medication ■ Filmtab coatings guard against this possibility. Vitamin repeat is brought to a minimum. Unpleasant odors and aftertastes are effectively sealed inside the Filmtab. Tablets are also *much* easier to take as they

can be up to 30% smaller in size. Bulky sugar coatings have been eliminated and breakage and cracking are less likely ■ As for stability—it's enhanced! No water is used in Abbott's Filmtab coating process. Chances of moisture degradation are virtually eliminated ■ When you recommend Abbott vitamins, Doctor, patients get the potency they pay for—today, tomorrow, a year from now.



Filmtab® vitamins by Abbott: Dayalets® / Dayalets-M® / Optilets / Optilets-M® / Sur-Bex® with C / Surbex T®

FILMTAB - FILM-SEALED TABLETS, ABBOTT. 202076

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.



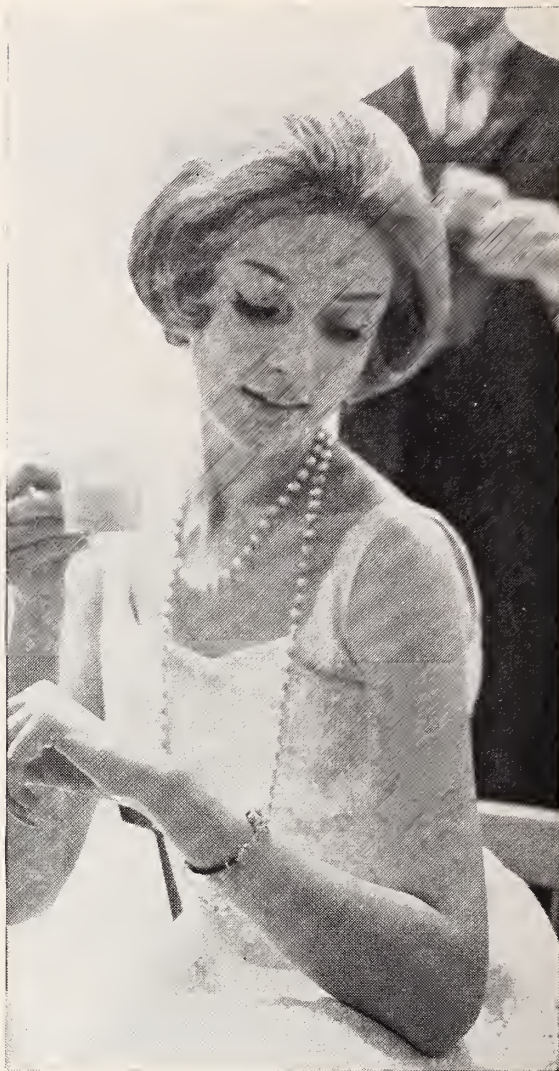
Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

asthma attack averted
... in minutes



patient protected
... for hours



Nephenalin[®]

(the dual-action anti-asthmatic tablet)

... works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, $\frac{3}{8}$ gr.; phenobarbital, $\frac{1}{8}$ gr.

Dosage: Hold one NEPHENALIN tablet under the tongue for five minutes to abort the asthmatic attack promptly. Then swallow the tablet core for four full hours' protection against further attack. Only one tablet should be taken every four hours. No more than five tablets in 24 hours.

Supplied: Bottles of 50 tablets. For children: NEPHENALIN Pediatric, bottles of 50 tablets.

Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & CO., INC., New York 17, N.Y.

Medical Economics Committee

MINUTES — NOVEMBER 19, 1961

Special Meeting of the Medical Economics Committee of The Arizona Medical Association, Inc., held Sunday, November 19, 1961, in the Central Office.

ROLL CALL

PRESENT: Doctors Chester, Ian M., Chairman; Eisenbeiss, John A.; Herzberg, Benjamin; O'Hare, James E.; Polson, Donald A.; Singer, Paul L., Secretary; Smith, Leslie B., President; Yount, Jr., Clarence E., President-Elect.

STAFF: Messrs. Boykin, Paul R., Assistant Executive Secretary; Carpenter, Robert, Executive Secretary.

GUESTS: Messrs. Erickson, R., Industrial Relations Representative, KCC; Flynn, E. J., Industrial Relations Counselor, KCC; Nuttall, L. K., Hospital and Insurance Administrator, KCC; Shuster, J. W., Director of Industrial Relations, KCC; Yagmin, Jr., F. A., Industrial Relations Director, KCC.

Celis, Gilbert R., International Union of Mine, Mill and Smelter Workers; Curtis, Verne, International Union of Mine, Mill and Smelter Workers; Barraza, Maclovio R., District II Executive Board Member, International Union of Mine, Mill and Smelter Workers; Mercado, Jacob S., International Union of Mine, Mill and Smelter Workers; Pinsky, Paul G., Insurance Consultant, International Union of Mine, Mill and Smelter Workers.

Dr. Chesser called the meeting to order and extended a welcome to all those in attendance. He indicated that for the first time, to his knowledge, apparently management and labor has invited medicine to be heard prior to the completion of negotiations dealing with health and welfare provisions, especially as pertains to medical care. To open discussion, Dr. Chesser called upon Mr. E. J. Flynn, Industrial Relations Counselor for the Western Mines Division of Kennecott Copper Corporation to present management's purpose in calling this meeting and present its views.

MR. FLYNN: "Speaking for Kennecott, Arizona, New Mexico and Utah Divisions, in the matter of hospital and medical coverage for our employees, now, despite the fact that Mine-Mill

does not represent all employees, Mine-Mill has thus far — we have taken the lead insofar as most of our employees are concerned, in the hospital, medical and surgical coverage and normally what we negotiate with Mine-Mill is accepted by all of our other unions with the exception of the steel workers in Utah. Steel workers in Utah bargain for hospital benefits on their own and they have a Blue Cross-Blue Shield on a par with the same program we had negotiated with Mine-Mill. The program that we have with Mine-Mill is an indemnity type program and it's underwritten by Travelers Insurance Company. That program was first negotiated . . . in 1954 and there were some improvements made in the plan as a result of negotiations in 1955, 1956 and again in 1959. Now our last bargaining session with Mine-Mill was late this spring and summer and during this round of collective bargaining there were no improvements made in any of the provisions of our hospital, medical and surgical plan. We did make a couple of administrative changes.

MORE DATA NEEDED

"One reason why the company resisted making any improvements in the existing plan was we felt there was a lack of knowledge on our part as to how the plan could be profitably improved from the employee point of view, from the union point of view, and from a company point of view. We thought that there were a lot of areas that didn't have enough information with respect to and it was suggested by the company and agreed to by the union that perhaps what we should do is establish a joint study committee and the objective of that study committee would be to review, in all states in which Kennecott operates, the administration of our hospital, medical and surgical plan and review with the doctors in those states some of the problems we have had in the past and also explore with the doctors some of the possibilities for a group hospital, medical and surgical plan in the future. Now, this is the study committee that was set up as a result of our 1961 negotiations. Up to this point, we have visited various establishments that we think have something to offer in the group

ARMA Reports

medical field. We have gone to Stockton, California and looked at the San Joaquin Medical Foundation which is Dr. Harrington's group. We have visited the Kaiser Foundation offices in Oakland. We have visited a Kaiser Clinic and a Kaiser Permanente Hospital in San Francisco, and we have also visited a closed-panel type of clinic in Santa Rosa, California. We have met with Blue Cross-Blue Shield in Utah. We have met with the Utah State Medical Association, the Salt Lake County Medical Society. We have met with the doctors over in Grand County, New Mexico. We have met with the doctors over in Ely, Nevada where our Nevada operation is located. We have met with officers of the newly-formed Nevada Physicians' Service . . . and, now, this rounds out our visits to the various medical societies in the states in which we operate. We have one more visit and that's scheduled for this week with the doctors in El Paso. What we frankly would like to do is just explore with you some of the problems we have had and frankly, find out to what extent there is participation by the members of your Association in the administration of the Blue Shield Program in Arizona—find out what you think about closed-panel medicine—see what you know about the San Joaquin Foundation approach to group medicine. In other words, as far as I am concerned, this should be free-wheeling and in the course of discussion I assume there will be some of the past problems that we had brought to your attention."

Mr. Verne Curtis representing the International Union of Mine, Mill and Smelter Workers was then called upon to comment.

MR. CURTIS: "I think that pretty well states the position of the Union. We find that living with the indemnity plan since 1954 that we continue to have problems that we are unable to solve at the present time. We feel that this study will help us in our future negotiations. It is our hope to be able to have a complete picture of all of the areas and a study made of our experiences by the end of January."

MR. FLYNN: "Perhaps we can invite some participation by the doctors in this by giving you just a little background of the meeting we had with the Utah doctors on Friday. We had met with them earlier and as a result of our discussions at that time, the Salt Lake County Medical Society thought it would be worth its while to send some representatives to Stockton,

California to review Dr. Harrington's set-up there. Now, as a result of the visit to Stockton by the Utah doctors, they made some proposals to us with respect to possible changes in the handling of the Blue Shield Program in Utah. For example, essentially the Salt Lake County doctors stated that they would build into the administration of the Blue Shield Program in Utah all of the reviews and safeguards that have been adopted in Stockton, California for the San Joaquin Foundation and basically that means there will be a claims review committee, composed of doctors, which will look at each and every claim that is submitted under the Blue Shield Program in Utah and, likewise, they will form a hospital utilization committee and each hospitalization will be reviewed by this committee of peers. Now, I wonder if you, doctor, would be able to tell us what the present procedure is in the administration of Blue Shield insofar as doctor participation is concerned in the administration of Blue Shield here in Arizona."

FEES

Mr. Paul Pinsky, Insurance Consultant for the International Union of Mine, Mill and Smelter Workers was then called upon to comment.

MR. PINSKY: "We have had an insurance plan and we negotiated a fee schedule in 1956 that amounts to practically a \$600 schedule. We oft times find that the schedule we have doesn't satisfy the doctors and our people, especially where it pertains to their dependents, are continuously paying money out of their pockets. Now, we've been making a survey of the experience we've had under Travelers. I have some copies here of doctor's claims. As an example, from August 1 to the report we received November 15 in Salt Lake City, which also includes a patient from Nevada on a referral basis, was in excess of \$13,000 that our people had to pay out of their pockets. In Arizona, I have some 25 or 30 examples here that I wanted to acquaint you people with and see if we could work out some machinery to take care of it . . . One of the things which neither Mr. Flynn nor Mr. Curtis mentioned that we would like to accomplish out of our session with you besides our prospective program and how we're going to go about it is what can we do under our present program. I don't think we want to go into any detail on the excessive charges—excessive, in our opinion. Now, what we have done with the other

societies is had an understanding on the machineries established whereby cases which our committee feels are excessive are referred to the committee appointed by the society and they study and then are passed, in Utah particularly where we have had considerable cooperation from the Society, and adjusted a number of claims. One of the specific things we would like to present to you gentlemen for the duration of our indemnity program and I don't know how long it is going to operate—until July 1, 1962, anyway—maybe longer—is to see whether we can get the same kind of cooperative program with you as we have with Utah. If you can't give us the answer today this is one of the specific things we would like to consider and then communicate with the parties concerned. . . . One of the things we are considering, and considering quite seriously, is the adoption of a uniform program of benefits which will be administered by Blue Cross - Blue Shield organizations in the areas where Kennecott operates—agreements—I don't know, exactly, the inner machinery, but at any rate, one of the things that bothers us about the Blue Cross-Blue Shield proposal is that in the past in the experience we had with Blue Shield, the work of the review committee, the work of the Blue Shield Medical Director of most Blue Shield organizations was limited primarily to preadjudication—what was it—about 90 to 95 per cent of the work of the review committee. Very little, practically nothing, was done about the propriety of a given hospital as to whether or not there was needless utilization of hospital facilities. There was very little done on the question of questioning the necessity of a given procedure—whether it was indicated or not indicated based on the report. Now, one of the things we've been discussing with the Blue Shield people is strengthening this kind of review work. You mention that you are familiar with the work done by the medical foundations in California and elsewhere and one of the things that brought the foundation into being, is the inadequacy of the Blue Shield machinery in this particular field. Now, we can blame the patient for wanting things done and wanting to go to the hospital but in the final analysis, it's the physician who decides whether or not the patient is going to go to the hospital, how long he's going to stay there and whether a given surgery is indicated or not. Well, you're familiar, there have been considerable abuses in the ex-

isting program. I am not speaking now about the specific program in Kennecott. One of the problems we have now in Kennecott is that our cost went up considerably and I'm not just talking about costs that you would expect to go up because of the changes in hospital rates.

UTILIZATION

Our utilization is one of the regions that have brought up our cost. In trying to find a new program we are interested in making sure that whatever money is expended by the men and by the company yields the maximum results. When we met the other day with the Utah Medical Society, the gentlemen there gave us a pretty clear indication that they would explore the San Joaquin operation. They feel that there is nothing in the San Joaquin program that they cannot do on a Blue Shield level in Utah. So as we're exploring the Blue Shield program, my question to you is: What would be the attitude of the State Society here to expand the activity of the review committee of Blue Shield to cover the other items which are done routinely in the Medical Foundation in Utah.

EXPLANATION

"Dr. Singer, I think you're missing the point. The Blue Shield program we're considering would be, if anything, better than the present program. We're not going to change instruments which provide care just for the sake of changing. There must be certain advantages to the people covered by the program. One of the things we are trying to do—we're not doing any bargaining yet—we're trying to improve the medical hospitalization program—we want more benefits. There are certain gaps in coverage. The out patient benefits for the dependents are inadequate. There are inadequate allowances now in some of the benefits which are provided—obstetrical benefit is one. Now, we're going to try to do all these things. We also recognize that there is a limit to the amount of money available which either the men are prepared to put out or that the Kennecott corporation, as gracious as they are, will be willing to pay for all these additional benefits. Now, what we're trying to do at the present time—we're trying to find out a better way to spend 94 to 95 cents out of each dollar that we're spending for benefits. Now, what we are looking for is 94 to 95 cents return for our money—the other difference being the necessary administrative costs. In dealing with Blue Shield

ARMA Reports

we wouldn't be dealing with an inadequate schedule, Dr. Singer, we would be talking in terms of a schedule which, so far as this income group, would be a schedule possibly equivalent or better than what we have at the present time. We know that you would be accepting it but we also know that we have a hospital utilization ratio of about 1.5 days or 1.6 days per person covered or, our hospital admissions run a couple hundred per thousand covered and we have some normal utilization. Now, we, as laymen, cannot control. Now we're coming to the medical profession and saying, now here is a problem—we need your help in controlling the utilization—not only hospitalization but controlling the performance of unnecessary procedures and you say that all the doctors are honest and will not perform surgery if surgery is not required. Now, I have seen many surgeries performed by competent men that show negative tissue report. Now those are facts of life, you know, and we can't just overlook them—and while 95 per cent, or maybe even higher percentage of the profession, is honest and sincere and do the best job there is, that percentage that does not do it and that percentage is the percentage that is responsible for a tremendous hike in the cost of medical care in this country, and unless the medical profession does more than they've been doing through their Blue Shield mechanism, we'll have to start seeking other ways and means of getting care for our people for the money we have to spend.

TREND

“Now, if these medical societies continue the approach they've been taking, it will force us more and more towards closed-panel plans like the Kaiser Foundation and like similar plans throughout the country and the very principle of free choice of physician, which is so dear to the American Medical Association and to all constituent bodies, is going to be dissipated and its going to be destroyed. This is why we're here, gentlemen. Now, I'm just laying out to you a real problem that we have and I can tell you from our experience if we're going to switch to Blue Shield and the Blue Shield review operation is going to be the operation that presently is undertaken and not expanded to cover other problems and do a review—the kind that some of the medical foundations, and the kind of review that the Utah Medical Foundation, by the way, indicated that it would be prepared to do

because they recognize its importance, then a couple years from now we'll be in another problem. The money that we'll be spending will not be sufficient to maintain what we develop . . . You separate Blue Cross and Blue Shield in your mind—well, to us it's the same—as Mr. Shuster pointed out, a patient does not get into the hospital without you signing or calling up and saying: 'I'm admitting such and such a patient'—and that patient is not going to leave the hospital until you sign the release . . . Modern medical care, however, cannot be divorced that way and there's going to be more and more need for hospitalization as advances in medicine take place—more expensive procedures, more complicated procedures which, however, can be done on an out patient basis. I've seen programs where the physicians undertook control. I don't see any harm done to the patient. I'm not an M.D., but we can tell by the complaints or grievances we get. Now, say you get a grievance from a fellow saying, “Well, the doctor chased me out of the hospital.” “Well, why did he chase you out?” “Well, I just wanted a couple extra days.” Now he gets no sympathy from the union, he gets no sympathy from anyone connected with the program because the programs are not providing a rest cure. We haven't reached that stage . . . Dr. Singer, one of the things we are exploring, which was suggested to us by the Utah people, was why not take our existing machinery—our Utah Blue Shield—there is no reason we cannot perform the functions which you say are performed by the foundation. So we met with the foundation people and Dr. Harrington assured us that if the Blue Shield in Utah wants to adopt the features of the foundation plan, they can do so but they don't have to set up another organization and this is the question we want to know—whether or not—because we are seriously considering a Blue Shield plan. Now, is this going to be a uniform plan as far as the four divisions of Kennecott are concerned?

FORMULA

“The Foundation which has another important formula the present Blue Shield Program doesn't have. The mechanism which they developed also assures the patient of better quality medical care. They do that by any time you provide unnecessary procedures—whether its complete X-ray and laboratory work where a patient comes in with a head cold—that's called medical care, they can

control to that extent. . . . Well, I can give you one example, for instance, there is one doctor there who would invariably follow a certain course of treatment on flu cases and the foundation review committee picked it up and it was sort of an unusual way to treat the patients. They called the doctor in and they discussed it. He was not called in by an insurance company adjuster, he was called in by a committee set up by the county medical society—the foundation—and the doctor either cuts out the practice, if it is not proper practice, or if he doesn't, at the end of the year his membership in the foundation is not renewed . . . he has dropped two in seven years of operation . . . in San Joaquin and Stockton—out of approximately 240 or 250 physicians practicing, two were dropped . . .

Well, it's not that they agree to put their medical reputations there, but whether or not a propriety of a given procedure, or whatever they do, meets the standards of the medical profession itself—not by the insurance company, not by us, but by the medical profession . . . I suggest that it might be worthwhile for you to contact Dr. Harrington or Boyd Thompson, the Executive Secretary of the Foundation, and they'll be very happy to provide you with the detailed procedure of exactly how they work and what not . . . It has reduced cost and brought about better benefits to the people who are covered by the program. . . . Well, we're trying to avoid that (over-utilization) in our plan, Doctor. You read our plan carefully and you'll realize that we're one of the few plans that will permit the surgeon to do maximum surgery in his office without penalizing the patient because we are also, in addition to paying the surgeon's fee, we will pay the so-called hospital extras—we will pay the cost of dressings, medication and what not, which Blue Shield does not pay, Blue Cross does not pay—it has to be done in the out patient department of the hospital and only in emergency cases. Now, we do that not only on emergency patients, we do that on our regular patients and we put that provision deliberately in the plan so we could keep our people out of the hospitals because the minute you put them in the hospital, you're lucky if you get by with less than \$50 per day. . . . We go further than that, we pay the cost of other expenses which the surgeon may charge such as the cost of anesthesia which the surgeon may charge over and above and the patient would have to pay in the case of Blue

Shield . . . or if you use splints or if you use some other material, you bill the patient over and above what the Blue Shield fee allows. Under our plan, you can bill the insurance company and they will pay you as though it were done in a hospital.

EDUCATION REQUIRED

"Well, what isn't automatic in most Blue Shield plans is the payment for casts and what have you in the doctor's office . . . Your point is well taken. Education is required. The problem is not 100 per cent the physicians," but you are the key factor and one of the problems the physicians themselves raise is: Well, if I take an attitude that this patient does not require hospitalization, then he'll say "good-bye, doctor" and he'll go see Dr. Jones and I lose a patient and why should I lose a patient? . . . Well, this is a stock answer I've been getting and one of the advantages of the foundation type approach is that Dr. Jones and Dr. Smith, all of you are in the same boat and you can tell the patient . . . My experience with the deductible has been that it does not reduce utilization at all, Doctor.

In the Los Angeles area, most major insurance companies who used to write the so-called comprehensive plans where there is a deductible and they pay 80 per cent and the patient picks up 20 per cent, they have stopped writing those comprehensive plans. Many major companies are not doing it any more because they found them to be expensive and they are found to be a source of considerable abuse. I have seen bills given to me by insurance companies, where the deductibles which were required were actually not paid and where the 80 per cent fee was way high so the doctor billing the patient for the 20 per cent didn't bother with the collection and what not.

"You asked me a question about a proprietary hospital and I told you earlier some of them are rackets and this is one of the reasons the many companies went out of business. I had a very good experience with the so-called co-insurance factor in reducing the hospital utilization and it was in Idaho where we were able to reduce the hospitalization by getting the doctors in as partners in the operation. It was done through the medical bureau which is similar to the Blue Shield set-up but they operate a little differently from the Blue Shield operation. There is so much money available. The hospitals were paid first, and then the doctors were paid on the basis of

ARMA Reports

80 per cent of the schedule and if there was any money left over at the end of the year they would be paid up to 100 per cent of the schedule . . . Dr. Smith, on this time schedule here, we told you we are discussing Blue Shield in Utah. We're not discussing the Blue Shield just for Utah alone—we are discussing it for the other areas and they have undoubtedly or will be in touch with the Blue Shield people here so whatever the commitments that are made in Utah, will have to be made also by the other groups and they may be convening special meetings, at least of the Board of Trustees of the Blue Shield, because they are considering the specifications which we outlined about a month ago.

"Now, you're going to decide whether Blue Shield is going to do this or isn't going to do it because this is in the area of professional practice and this is something which has to be determined by the medical profession and not by the lay administrators . . . Well, the reason I made it as strong as I did, and you know it, is that one of the factors that will determine our position as to whether or not we're going to switch will be whether or not these safeguards are going to be present."

DISCUSSION

For the edification of the guests in attendance, Dr. Chesser reviewed in detail the method of operation of both Blue Cross and Blue Shield in Arizona. Especially did he outline the existing mechanisms whereby claims are first reviewed by the Executive Director and staff, including the medical director who is a doctor of medicine. Should there be questions regarding a particular claim, as pertains to medical procedure, such cases would then be reviewed by a professional committee organized for the purpose including representation within the specialty fields of medicine.

The meeting was then opened to discussion during which period there was presented some of the problems confronting management and labor and particularly, examples of cases in dispute were presented involving principally doctors of medicine in the Phoenix and Tucson areas.

The possibilities of developing a fee schedule was likewise discussed at some length. Presented was a pamphlet setting forth hospital, medical and surgical benefits available to active employees and their dependents and retired em-

ployees and their dependent spouses for the period January 1, 1960 to June 30, 1961, as provided in accordance with agreement between the Kennecott Copper Corporation Western Divisions and subsidiaries of the participating trade unions. While the fee schedule contained therein was not given close scrutiny, both management and labor recognized that there were a number of inadequacies which required review and adjustment. Dr. Chesser presented a pamphlet prepared by the Douglas Aircraft Company, Inc., covering a similar program in which a large number of the Tucson physicians were participating. It is referred to as the Group Hospital-Surgical Medical Plan. It is considered mutually agreeable to both management and employees and medicine. It is developed in line with "relative values" (the California Relative Value Study) and a factor of 5.50 is applied. Dr. Chesser also reviewed some of the details dealing with the several plans of Arizona Blue Shield, which operation is, of course, sponsored by the doctors of this Association.

In conclusion, Mr. Pinsky stated that in the development of any plan what is most desirable, based upon experiences from the Union Welfare Plan standpoint, is the full cooperation of medicine, especially to control "utilization". Blue Cross-Blue Shield is being considered along with other commercial programs. In any event, whatever program is finally determined upon, it is considered essential that it be applicable to the four states, Arizona, Nevada, New Mexico and Utah. More specifically stated, Mr. Pinsky outlined the following four points desirable:

1. Establishment of mechanism whereby fees in dispute may be reviewed and adjudicated.
2. Evaluate hospital admissions with a view of some control over utilization.
3. Establishment of mechanism to review medical and/or surgical procedures in the light of necessity, and
4. Establishment of mechanism to assure better quality of medical care for the participants in the program which would include adequate diagnostic and laboratory evaluations.

In discussing the aforementioned points, reference was made to the so-called "Foundation Plans" in operation in California, wherein medicine has concerned itself regarding quality of medical care, utilization of hospitals and, when involved, excessive fees. It is the hope of the union representatives present that possibly such

approach can be achieved should a Blue Cross-Blue Shield Program be finally determined upon resulting in the full cooperation of medicine to achieve the objective sought.

Mr. Flynn indicated that the current program between Kennecott Copper Corporation and its employees and their dependents and its retired employees and their dependent spouses will expire June 30, 1962. It is the desire of management to finalize its studies as regard its Hospital, Medical and Surgical Program by early January, 1962. If it is possible for medicine to consider the discussion presented this morning and undoubtedly it will wish to have these thoughts reviewed by both Arizona Blue Cross and Blue Shield, and express its conclusions sometime during December next, it will immeasurably assist in the negotiations under way between management and labor. It is very possible that a meeting on the Blue Cross-Blue Shield level by the several states involved will be essential before any final determination can be made.

Each delegation expressed gratefulness in the privilege of meeting with one another to discuss this matter and obviously, better understanding and much good will will result from the deliberations this morning.

Paul L. Singer, M.D.
Secretary

COMMITTEE ON NARCOTICS STUDY

Minutes — Nov. 29, 1961

ROLL CALL

PRESENT: Drs. Currin, John F.; MacMillan, Richard K.; Schramel, John E.; Smith, Noel G., Chairman; Mr. Boykin, Paul R., Assistant Executive Secretary. GUEST: Mr. Sojat, Frank A., Narcotic Agent. EXCUSED: Drs. Bendheim, Otto L.; Podolsky, Abe I.; Rowe, Harold J.; Singer, Paul L., Secretary; Smith, Leslie B., President; Yount, Clarence E. Jr., President-elect; Yount, Florence H. B.

MINUTES

Mr. Frank Sojat discussed the general aspects of the narcotic problem in our community with particular emphasis on the problem of provision for civil commitment.

Following a careful study of the recently passed Senate Bill No. 1 and also following dis-

cussion about the problems facing the medical profession and the community as a whole with regard to narcotic addiction, it was our opinion that the following steps should be undertaken:

We recommend that the legislature be requested to amend Senate Bill No. 1, Paragraph 36-1062, which deals with individuals convicted of using narcotics for the first time. Since narcotic adiction may be a symptom of an underlying medical or psychiatric disorder amenable to treatment, we feel that first offenders should have the advantage of (1) civil commitment and, (2) medical and psychiatric evaluation. The said physical and psychiatric evaluation to be carried out during the first 90 days of civil commitment in a state institution under maximum security. Following this evaluation, a detailed report should be submitted to the court outlining the findings of this medical phychiatric team, including recommendations. At the discretion of the court, the offender may be returned to the county jail as otherwise provided in this law, or if treatable be referred to adequate facilities for further treatment. If the individual or his estate is financially able in part or totally to assume this responsibility, then this should be made mandatory by court order. Otherwise, the cost of such treatment shall be a state charge.

This paragraph shall not be interpreted to remove the offender from the jurisdiction of the court during the period of treatment and probation.

RESOLUTION

The following resolution was considered in detail and after careful consideration it was the unanimous opinion of this committee that this resolution be presented to the House of Delegates for their approval:

WHEREAS, the American Medical Association and the American Bar Association have had committees studying the problem of narcotic drug addiction, and

WHEREAS, successful and humane *withdrawal* of individuals addicted to narcotics in the United States necessitates constant control under conditions affording a drug-free environment, and always requires close medical supervision, and

WHEREAS, the succesful treatment of narcotic addicts in the United States requires extensive post-withdrawal rehabilitation and other therapeutic services,

BE IT RESOLVED, that the Arizona Medical

ARMA Reports

Association expresses the opinion that maintenance of stable dosage levels in individuals addicted to narcotics is generally inadequate and medically unsound and that ambulatory clinic plans for the withdrawal of narcotics from addicts are likewise generally inadequate and medically unsound, and

BE IT FURTHER RESOLVED, that the Arizona Medical Association delegates to the American Medical Association be instructed (a) to oppose the development of such ambulatory treatment plans, and (b) to support (1) after complete withdrawal, follow-up treatment, including that available at rehabilitation centers, (2) measures designed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment, (3) the advancement of methods and measures toward rehabilitation of the addict under continuing civil commitment, and (4) the establishment of methods for the dissemination of factual information on narcotic addiction to the members of the medical profession.

There being no further business to discuss, the meeting was adjourned.

Richard K. MacMillan, M.D.
Committee Secretary

PROFESSIONAL LIAISON COMMITTEE

Minutes — Nov. 12, 1962

ROLL CALL

PRESENT: Drs. Born, Ernest A.; Frissell, Ben P., Chairman; Kurtz, Clyde W.; Payne, William G.; Rowe, Harold J.; Secrist, Delbert L.; Smith, Noel G.; Wagner, Albert G. Messrs. Boykin, Paul R., Assistant Executive Secretary; Carpenter, Robert, Executive Secretary. GUEST Farnsworth, Stanford F., M.D., Member Subcommittee on Public and School Health. EXCUSED: Drs. Singer, Paul L., Secretary; Smith, Hugh H.; Smith, Leslie B., President; Young, Roy O.; Yount, Clarence E. Jr., President-elect.

SUBCOMMITTEE REPORTS

Allied Professions

Doctor Frissell reported in the matter of complaint received from Norman A. Ross, M.D., contained in letter dated June 1, 1961, referable to the distribution of Bulletin, Vol. 1, No. 2, by

the Arizona Blue Cross-Blue Shield. In essence, it appears that he has interpreted the information received as being sent to all participating members of the Blue Cross-Blue Shield Plan, namely the policy holders. This is not the case, however. This Bulletin, as it is headed, is a professional relations bulletin for the information of its participating doctors only. There is a matter of disciplinary action against participating member physicians for abuse of the fee schedule arrangement. This is a problem for the Professional Committee of Blue Shield, which is composed entirely of physicians who are, in turn, elected by the House of Delegates of the State organization. It is also to be kept in mind that the Blue Shield agreement, which the participating physician signs and agrees to, clearly states the regulations as to fees in the different income categories.

A fee schedule has also been worked out with the cooperation and approval of the participating physicians through the Professional Committee. Doctor Frissell concludes, therefore, that there is no valid basis for Doctor Ross' complaint.

It was moved by Doctor Payne, seconded by Doctor Rowe and unanimously carried, that this report be forwarded to the President of the Arizona Medical Association, Inc.

Doctor Kurtz reported the following membership composite of his Subcommittee on Allied Professions; Harry J. French, M.D., Sidney L. Stovall, M.D., and Wayne F. Winn, M.D., all of Phoenix.

The Subcommittee on Allied Professions is in support of previous recommendations (November 13, 1960) from this committee referable to the AMA Statement of Policy as pertains to Osteopathy, that the full Professional Liaison Committee attend any initial meeting with the Doctors of Osteopathy in the State of Arizona toward liaison on problems of mutual concern. The Subcommittee feels that this report by the AMA should be fully publicized through the Arizona State Medical Journal for its membership. Dr. Kurtz further stated that, with approval, his committee will seek to gain further information from states now undergoing integration between osteopathy and medicine, such information being useful in future planning.

It was moved by Dr. Kurtz, seconded by Dr. Payne and unanimously carried, that this Committee recommend to the Board of Directors that the AMA Statement of Policy dealing with

osteopathy be published in Arizona Medicine Journal for the edification of the membership; that no further action is indicated at this time; and that the Subcommittee on Allied Professions keep in contact with those states where process of amalgamation is taking place. (Edit. Note—Published in ARIZONA MEDICINE, Sept. 1961, Vol. 18, No. 9).

Dr. Paul Case was contacted referable to ARMA House of Delegates Resolution No. 16 regarding "Establishment of a Commission on the Relationship of Medicine to Optometry" and he informed Dr. Kurtz that in view of action taken by AMA at their June, 1961 meeting, this matter could be considered closed.

Report of AMA actions in New York, June, 1961, referable to (1) Commission to Coordinate the Relationships of Medicine with Allied Professions and Services and (2) Report of Subcommittee to Study the Relation of Medicine to Optometry, were received. No recommendations are made.

Following is a Statement of Policy regarding Podiatrists adopted by the American Academy of Orthopaedic Surgeons.

1. There is a place for podiatrists in hospitals.
2. The extent of podiatry service should be determined at the local level and vary with the size, type, staff organization of, and service rendered by the hospital.
3. These services should be logically be provided in the Out Patient Department of those hospitals in which podiatrists are permitted to practice and be confined within the scope of the practice of podiatry as authorized by the statutes of the state.
4. The services of podiatrists in hospitals are in the best interests of the public only when rendered under medical supervision and should be confined to the Out Patient Department.
5. The services of podiatrists in hospitals must be rendered under one of the existing Departments or Sections which has been charged with the supervision of podiatry services. Provision of podiatry services in the hospital does not confer on podiatrists the privilege of admitting patients to the hospital.
6. In those hospitals where a podiatrist is permitted to perform surgery as a technician, it is recommended that he be under the direct supervision of a physician. By supervision, it is meant that during the operation, a staff surgeon must be present in the operating room, gowned and

scrubbed, as the responsible person.

7. The podiatrists in their relationships with physicians should subscribe to and comply with "Guiding Principles for Relations Between Physicians and Allied Health Professions" as recommended to the AMA by the Committee on Relationships of Medicine with Allied Health Professions and Services, and as adopted by the House of Delegates of the AMA, June 16, 1960."

While, following review by the Subcommittee on Allied Professions, it agreed generally with the Statement of Policy, it is its feeling that the surgical practice of a podiatrist in a hospital, even though ostensibly under the direct supervision of a member of that hospital, is to be denied.

It was moved by Dr. Kurtz, seconded by Dr. Wagner and unanimously carried, that this committee recommend to the Board of Directors that it adopted as our code the Statement of Policy of the American Academy of Orthopaedic Surgeons on the Practice of Podiatry in Hospitals, deleting paragraph number "6" referable to the performance of surgery by podiatrists acting as technicians under the supervision of a staff surgeon.

In the matter of AMA policy regarding ownership of pharmacies and/or ownership of pharmaceutical companies by physicians, it, in essence, indicates that it is considered ethical providing it is in the best interests of the patient. These policies have been reviewed by your committee. Contact and inquiry with Mr. Dunnean, Executive Secretary, Arizona Pharmaceutical Association, has been carried out. No formal complaints have been rendered to this committee. Improved liaison will be established providing closer contact with the Arizona Pharmaceutical Association. It is felt that minor complaints at the present time, do not represent any breach of ethics by physicians and no recommendations are made for changes in existing policy.

Referable to the AMA Survey on Liaison Activities between State Medical Societies and State Voluntary Health Agencies, contact was made with the National Foundation. Review of existing local conditions reveal a lack of good liaison between local (Maricopa County) medical advisory groups and the Foundation, although a medical advisory group exists. This can be explained mainly by the relative inactivity of the National Foundation locally since undergoing a change in their program. The committee feels that closer liaison between the component socie-

ARMA Reports

ties and Foundation chapters can be obtained by acceptance and pursuance of the policy outlined and adopted by the House of Delegates of AMA, June, 1960, and recommend acknowledgment of the policy and action, where needed, to its component societies. It was determined to refer this subject to the Subcommittee on Related Non-Official National Organizations under the Chairmanship of Dr. Rowe.

Mr. Duncan, Executive Secretary of the Arizona Pharmaceutical Association has been contacted referable to the problem of mail-order prescriptions. The following facts are evident: (1) Both the American Pharmaceutical Association and the Arizona Pharmaceutical Association consider these mail-order prescriptions a threat to the physician-patient-pharmacist relationship; (2) mail-order operations are illegal in Arizona; (3) The Arizona Pharmaceutical Association requests the support of the Arizona Medical Association in informing our physicians of this public health hazard. It is suggested that an editorial alerting physicians of this hazard be submitted and published in the Arizona Medicine Journal. *Careers and Arizona AMEF*

Dr. Wagner reviewed the progress of activities associate with the career program since its inception in June of 1961. Appointed as representatives of the State Committee are the following:

Ernest A. Born, M.D., Yavapai County; Arnold H. Dysterheft, M.D., Apache, Navajo, Gila Counties; C. Herbert Fredell, M.D., Coconino, Mohave Counties; Deward G. Moody, M.D., Cochise, Graham, Greenlee, Santa Cruz Counties; James T. O'Neil, M.D., Yuma, Pinal Counties; John R. Swartzmann, M.D., Pima County; Dermont W. Melick, M.D., Vice Chairman; Albert G. Wagner, M.D., Chairman, Maricopa County.

The component county societies have been requested to select a member of their respective group to serve as a county chairman with the objective of promoting the program of careers in medicine on the local level. Following are the appointees designated to date:

Apache County, Jack Mowrey, M.D. (McNary) or Arnold H. Dysterheft, M.D., (McNary). Gila County, Thomas F. Moore, M.D., (Miami); Greenlee County, Stanton C. Lovre, M.D., (Clifton); Maricopa County, Albert G. Wagner, M.D. (Phoenix); Navajo County, R. Joseph Haley, M.D., (Holbrook); Yavapai County, Ernest A. Born, M.D. (Prescott).

Effort continues in contact with the remaining component societies in the hope that each will designate a member in order that representation in each of the fourteen counties will be realized thus bringing to each area of this state, the student careers program in the hope of interesting high school and college students to consider a career in medicine.

On October 25, 1961, at the Safari, there was organized a new group of Phoenix doctors of medicine who received the pre-medical education in this state formed to stimulate Maricopa students to enter medicine. This organization is to be called "The Sun Docs." They have pledged firm support to the Medical Careers Program. Dr. Roy Johnson of Arizona State University, at its first meeting discussed medical careers, stressing the importance of personal sponsorship and preceptorship of a pre-medical students by a practicing physician.

Dr. Wagner reviewed correspondence he had with Dr. George R. Moon, Associate Dean of Admissions and Records of the University of Illinois College of Medicine, Chicago, who has furnished considerable information valuable in the conduct of this careers program; also with Norman H. Budde, Department of Program Development of the AMA, who has furnished considerable available materials, pamphlets, etc., and, for the enlightenment of the Committee, presented the details of the program. Likewise, he reviewed the results of the program schedule recently conducted at the Phoenix College Stadium attracting an estimated eight hundred people, including students and their parents, interested in the Medical Careers Program presentation. Similar presentations will be scheduled and conducted in the high schools of Maricopa County in the months ahead. Presented to each member of the Professional Liaison Committee was a kit to be used by doctors of medicine participating in the presentation of the program, including a complete outline of the approach, questionnaires, follow-up contact material and pamphlets.

A meeting with Careers, Inc., was held November 13, 1961, and Dr. Wagner attended. The activity of this group is aimed primarily at the grade school level as distinguished from the high school and college levels of this Association's program.

Dr. Wagner also reported in the matter of the American Medical Education Foundation, a part

of his Subcommittee assignment. Currently, there is being conducted a drive on the national level to encourage continuing and increasing donations. As you know, this Association allocates \$10.00 out of each active member's annual dues as its contribution toward this Foundation. The funds are made available to the medical schools of the United States to be used as they see fit and to assist in their operation. It is understood that principally these funds are used to increase the salaries of the medical school staffs. It was reported that there will be introduced in the House of Delegates of this Association at its next Annual Meeting, a resolution which will direct that one-half of this dues allocation be diverted and used associate with the student loan program operated by the Benevolent and Loan Fund Committee.

Governmental Medical Staffs

Dr. Payne presented a written report setting forth the results of his survey on governmental provisions for medical supervision of those governing agencies and boards having custody of minor children in the State of Arizona. Included in the study is a review of statutes governing the operating in neighboring states i.e., California, Nevada, Colorado, New Mexico and Utah. There is apparently no uniformity in the statutes and official opinions which govern the various agencies for custody of minor children within the individual states. Comparisons of organizations are set forth in the report. In Arizona, the Advisory Board consists of the judges of the Superior Court in those counties having more than one judge, the judge sitting in the Juvenile Court is a member of the Board, associate with the recent establishment of a Youth Authority. Its activity is patterned very much after the California code. It would appear that any attempt to secure uniform and adequate medical supervision at this level with those agencies having custody of minor children should be made at this level through the Arizona Youth Authority. Dr. Payne fears that were it possible, either through judicial ruling caused by enactment of the necessary legislation to obtain liaison with this board, or even membership in the Board from the State society, there would then be an established chain of contact with the responsible bodies dealing with minor children. At the present time, authority seems usually placed with the county board of supervisors in providing care for minor children in county institutions under

their jurisdiction and that the general all-over relation of the Youth Authority to its board is a quasi-legal activity dealing primarily with juvenile offenders rather than minor children in general. At the present time, Judge Francis Donofrio of the Superior Court of Maricopa County is assigned to activities of the Juvenile Court. Dr. Payne plans to meet with him to discuss the statute governing the establishment of a Youth Authority and its operation. It is considered wisdom to arrange a meeting with the Youth Authority to discuss medicine's interest in the custody of minor children, keeping in mind the desirability of having appointed to the membership of the Youth Authority a doctor of medicine, preferably in the field of public health, and stressing the great need for better care for these children. Further study of the problem is indicated and will be continued by this subcommittee which will submit subsequent reports in due course.

It was moved by Dr. Payne, seconded by Dr. Secrist and unanimously carried that the report of the subcommittee on Governmental Medical Staffs be accepted.

Dr. Payne announced the membership of his subcommittee to include Marcus W. Westervelt, M.D., of Tempe, and MacDonald Wood, M.D., of Phoenix.

Nurses

It was suggested that Paul B. Jarrett, M.D., of Phoenix, and Clarence H. Kuhlman, M.D., of Tucson, be appointed members of this subcommittee.

Reviewed was a letter received from the National League of Nursing, Inc., requesting publicity through the Arizona Medicine Journal in support of the NLN Fellowship Program. It is available to qualified nurses for leadership positions having superior abilities and leadership qualities to enable them to engage in full-time study. It was stated that NLN is a liaison group within the field of nursing whose activities are directed principally in the field of training.

It was suggested that this subcommittee contact and meet with the Arizona State Nurses Association to establish improved liaison, making itself available to assist the nurses in their programs where indicated.

Public and School Health

Dr. Smith reviewed the minutes of meeting of the Subcommittee on Public and School Health, held September 30, 1961, for the edification of

ARMA Reports

the Committee.

It was moved by Dr. Payne, seconded by Dr. Rowe and unanimously carried, that the report be accepted.

Regarding the proposed School Health Seminar, Dr. Smith further reported that there had been circulated among the membership last year, a questionnaire endeavoring to ascertain how many of the physicians were active in school health work and, in addition, attempt to determine how many additional doctors would be interested in this field, agreeable to serve as consultant to the various school districts. It was disclosed that of a total of 219 responses, sixty-three were already engaged in the activity and an additional one hundred and fifty-six doctors expressed interest in a school health program. It has been determined to proceed to develop plans for a seminar to be held, possibly, in February of the new year, which will be a one-day session held in Phoenix in the Auditorium of the Maricopa County Health Department. It is the hope that there will be representation from each of the fourteen counties. The workshop will be developed to acquaint the new consultants as to the activities and their problems associate with school health, suggesting ways and means the doctor of medicine might be of greatest assistance in furthering the objectives. The instructors have been selected to present general orientation, purposes and goals of the program. Determination of health needs including examinations, screening tests, immunization, mental examinations, psychiatric testing and development and maintenance of adequate records will be a part of the over-all program presentation. Where need is indicated, emphasis will be placed on referral of the child to the family physician for essential examination and followup treatment. Discovery of abnormalities in children will be given special attention. Consideration must also be given to the matter of the medically indigent, care of emergency sickness and injury during school sessions, outlining minimal emergency care procedures as may be indicated. Provisions for control will also be included in the program.

Dr. Smith sought direction of this Committee as to whether or not the Seminar Program should be proceeded with in the hope that it will have the full consent and support of the Board of Directors; further, that the Committee approve an expenditure not to exceed \$300.00 necessary in

the conduction of the proposed seminar; and further, that the support of the Board of Directors be obtained to assure representation from all of the county societies in the State. If necessary, the Board could make direct contact with the Presidents of the component societies, appealing to each to designate a member to be in attendance at the one-day Seminar Program.

Dr. Farnsworth commented upon a letter dated September 6, 1961, addressed to the President of the Association, by Ben Freedman, M.D. M.P.H., Director, Division of Preventive Medicine and Public Health Training, Louisiana State Board of Health, referable to the problems involved in the administration of community health programs by government. Most critical today is the increasing tempo at which lay-administered agencies are taking over the operation of health services. He stated that many of us are not aware of the extent of the dispersion of administration and operation of community health programs among many aggressive lay-administered agencies, and our own profession's responsibility for this fragmentation of service and the ominous implications and results of this fragmentation. The Louisiana State Medical Society has adopted a resolution creating a committee for study and making recommendations concerning this matter.

Dr. Farnsworth concluded that this problem requires further consideration, recognizing the steady increase through the years of these lay-administered agencies participating in community health programs, and will be included on the agenda of the next meeting of the Subcommittee and a report presented to the full Committee at its next meeting.

Related Non-Official National Organizations

Dr. Rowe reviewed the subject of National Foundation Scholarships available in the State of Arizona, which includes doctors of medicine and nurses, and could well fit in with the Careers Program. Considerable discussion ensued regarding the over-all activities of the National Foundation, the conflicting problems frequently arising as the result thereof, including the expansion of its activities into the fields of Arthritis, Congenital Defects, Poliomyelitis, Special Treatment Centers and Evaluation Clinics. It is indicated that further study of these problems is desirable and the Medical Advisory Groups appointed to serve the various chapters possibly could be prevailed upon to submit periodical reports as to just what is being done

and/or contemplated which would improve the relationship between medicine and the Foundation. Dr. Rowe expressed the hope that his Subcommittee will be in position to report further at the next meeting of the Committee.

Women's Auxiliary

Dr. Born stated that he knew of no problems confronting the Women's Auxiliary and that he had no report to make at this time.

Paul L. Singer, M.D.

Secretary

For all YOUR DRUG needs-

Phone MAC
ALpin 4-2606
or
ALpin 2-1573
In Arizona Since 1920

FAST FREE DELIVERY

MACALPINE'S

THE *Rexall* STORE • 2303 N. 7th ST.

WAYLAND

PRESCRIPTION PHARMACIES

TWO CONVENIENT LOCATIONS

NORTH CENTRAL MEDICAL BLDG.

2021 N. Central


And

PROFESSIONAL BUILDING

13 E. Monroe

Phoenix, Arizona

CITY WIDE DELIVERY



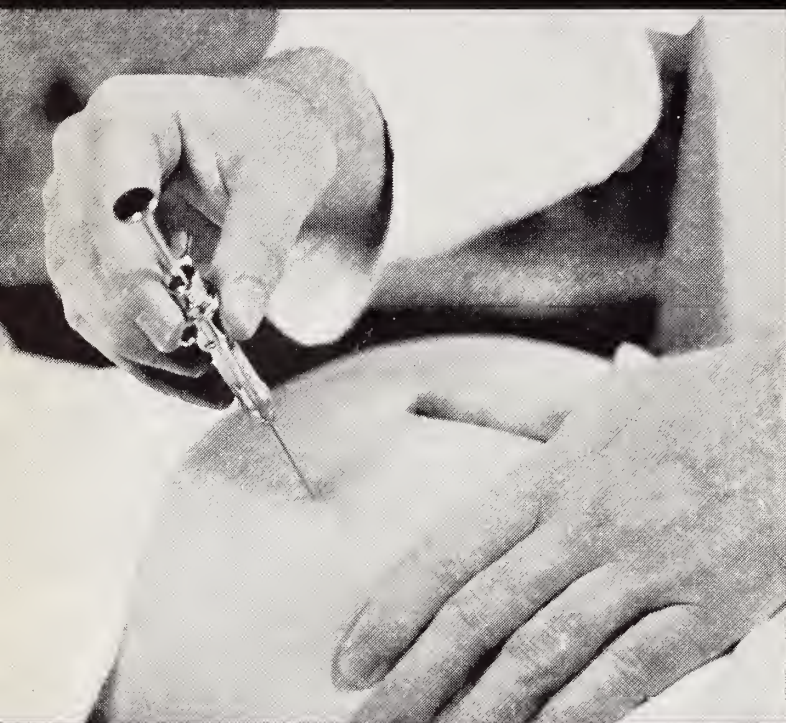
**CAMELBACK
PROFESSIONAL
BUILDING**

ROBERT L. BEAL, M.D.
OTTO L. BENDHEIM, M.D.
HAL J. BREEN, M.D.
INEZ P. DUNNING, M.A.
T. RICHARD GREGORY, M.D.
DERALD G. MAY, M.D.
HAROLD E. McNEELY, Ph.D.
ROBERT C. SHAPIRO, M.D.
WILLIS L. STRACHAN, M.D.
IRENE M. JOSSELYN, M.D.
JOHN R. ZELL, M.D.

*general psychiatry and neurology
child psychiatry
psychoanalysis
clinical psychology
psychiatric social work
and family counselling*

**5051 NORTH 34th STREET
PHOENIX 18, ARIZONA
AM 4-4111**

In oral penicillin therapy
COMPOCILLIN-VK
offers the speed, the certainty,
the effectiveness
of this...



with the safety
and the convenience
of this...



IN ORAL PENICILLIN THERAPY COMPOCILLIN[®]-VK

POTASSIUM PENICILLIN V

BECAUSE potassium penicillin V (Compo-cillin-VK) offers excellent absorption^{1,2,3,4}—fast, predictable levels of antibacterial activity enter the blood stream and quickly reach the site of infection. *Absorption takes place high in the digestive tract and is virtually unaffected by gastric media.*

Antibacterial levels are so predictable that, in many cases, *Compocillin-VK may be prescribed in place of injectable penicillin.* This is especially appreciated by younger patients and—as you know—oral administration is considered far safer than injectable.

Compocillin-VK is well tolerated and may be used in treating mild, severe, and in high dosage ranges, even critical cases involving penicillin-sensitive organisms. It comes in stable, palatable forms for every patient—every age.

There are tiny, easy-to-swallow Filmtab[®] tablets—125 mg. and 250 mg. (200,000 units and 400,000 units), a tasty, cherry-flavored suspension (each 5-ml. teaspoonful contains 125 mg.) and two combinations (Filmtab and suspension) with the triple sulfas. Depending on severity of infection, dosage for Compocillin-VK is usually 125 mg. or 250 mg. three times a day. Won't you try Compocillin-VK?

1. R. Lamb and E. S. Maclean, Penicillin V—A Clinical Assessment After One Year, *Brit. M. J.*, July 27, 1957, p. 191-193. 2. J. I. Burn, M. P. Curwen, R. G. Huntsman and R. A. Shooter, A Trial of Penicillin V, *Brit. M. J.*, July 27, 1957, p. 193. 3. J. Macleod, Current Therapeutics, *The Practitioner*, 178:486, April, 1957. 4. W. J. Martin, D. R. Nichols and F. R. Heilman, Observations on Clinical Use of Phenoxymethyl Penicillin (Penicillin V), *J.A.M.A.*, p. 928, March 17, 1956.



Theragran[®]

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesses who need therapeutic vitamin support. Each Theragran supplies the essential vitamins in truly therapeutic amounts:

Vitamin A	25,000 U.S.P. Units
Vitamin D	1,000 U.S.P. Units
Thiamine Mononitrate	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Vitamin C	200 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B ₁₂	5 mcg.

SQUIBB



Squibb Quality—the Priceless Ingredient

'Theragran'® is a Squibb trademark

●● nutrition...present as a modifying or complicating factor in nearly every illness or disease state ●●¹

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases “Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease.”²

2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis “It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . .”³

3. Fernandez-Herlihy, L.: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.⁴ Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.⁵

4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases “Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult.”⁶

6. Overholser, W., and Fong, T. C. C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.⁷

7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported In: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.⁸ “Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes.”⁹

8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

NEW
B.I.D.
DOSAGE



*only one
lasts all night*

*only one
lasts all day*



PRO-BANTHINE P.A.[®]

(BRAND OF PROPANTHELINE BROMIDE)

PROLONGED-ACTING TABLETS—30 mg. Effective • Convenient • Sustained Action

PRO-BANTHINE[®], the leading anticholinergic, is now available in a distinctive prolonged-acting dosage form.

The prolonged action of new PRO-BANTHINE P.A. is regulated by simple physical solubility. Each PRO-BANTHINE P.A. tablet releases about half of its 30 mg. promptly to establish the usual therapeutic dosage level. The remainder is released at a rate designed to compensate for the metabolic inactivation of earlier increments.

This regulated therapeutic continuity maintains the dependable anticholinergic activity of PRO-BANTHINE all day and all night with only two tablets daily in most patients.

New PRO-BANTHINE P.A. will be of particular benefit in controlling acid secretion, pain and discomfort both day and night in ulcer patients and in inhibiting excess acidity and motility in patients with peptic ulcer, gastritis, pylorospasm, biliary dyskinesia and functional gastrointestinal disorders.

Suggested Adult Dosage: One tablet at bedtime and one in the morning, supplemented, if necessary, by additional tablets of PRO-BANTHINE P.A. or standard PRO-BANTHINE to meet individual requirements.

G. D. SEARLE & CO.
CHICAGO 80, ILLINOIS
Research in the Service of Medicine



*once again,
an active
hand in
"doing" —*

PABALATE®

In each yellow enteric-coated PABALATE tablet:

Sodium salicylate (5 gr.)
0.3 Gm.
Sodium para-aminobenzoate
(5 gr.) 0.3 Gm.
Ascorbic acid 50.0 mg.

In each pink enteric-coated PABALATE-SODIUM FREE tablet:

Same formula as PABALATE, with sodium salts replaced by potassium salts.

In each light blue enteric-coated PABALATE-HC tablet:

Same formula as PABALATE-SODIUM FREE, plus hydrocortisone (alcohol) . . . 2.5 mg.

Making today's medicines with integrity . . . seeking tomorrow's with persistence.

Robins mutually potentiating nonsteroid antirheumatics

"superior to aspirin"² and with a "higher 'therapeutic index'"¹

When sodium should be avoided—

PABALATE®-SODIUM FREE

When conservative steroid therapy is indicated—


PABALATE®-HC

Pabalate with Hydrocortisone

1. Barden, F. W., et al.: J. Maine M. A. 46:99, 1955.

2. Ford, R. A., and Blanchard, K.: Journal-Lancet 78:185, 1958.

A. H. ROBINS COMPANY, INC., RICHMOND 20, VIRGINIA



Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA[®]

(carisoprodol, Wallace)

 Wallace Laboratories, Cranbury, New Jersey



Schering

when "flu" strikes

relieve **U. R. I.** distress rapidly

- relieve sneezing, runny nose
- ease aches and pains
- lift depressed feelings
- reduce fever, chills

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

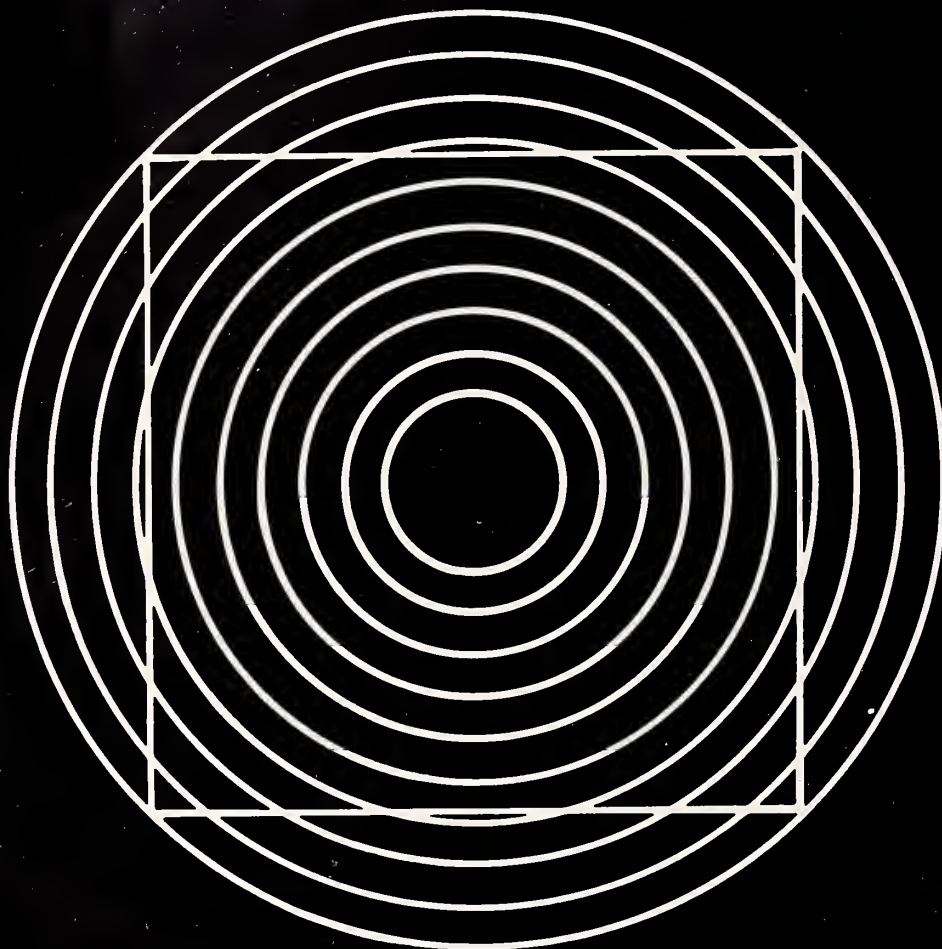
Rx

CORIFORTE[®]
(Brand of Analgesic-Antihistaminic-Antipyretic Compound)
capsules

Each CORIFORTE Capsule contains:
CHLOR-TRIMETON[®] 4 mg.
(brand of chlorpheniramine maleate)
salicylamide 0.19 Gm.
phenacetin 0.13 Gm.
caffeine 30 mg.
methamphetamine hydrochloride 1.25 mg.
ascorbic acid 50 mg.

available on prescription only

straight or concave?



If the confusing array of concentric circles were removed, it would be easy to see that the sides of the square are perfectly straight.

Likewise, when claims of "price" and "blood level" advantages are viewed in proper perspective, it becomes clear that it's what a drug *does* that counts.

V-Cillin K® achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.¹ Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food*. Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

For consistently dependable clinical results

prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

V-Cillin K® (penicillin V potassium, Lilly)

1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.



233210

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Diagnostic Use of Radioisotopes

Charles A. Owen Jr., M.D.

Several very valuable radioisotope technics can be carried out in small and medium-sized hospitals: (1) MEASUREMENT OF THYROID FUNCTION by uptake of radioiodine in several modifications (today the most sensitive test for hyperthyroidism, while measurement of the protein-bound iodine (PBI) is more sensitive in problems of hypothyroidism) and by uptake of triiodothyronine by the erythrocytes; (2) HEMATOLOGIC APPLICATION OR RADIOISOTOPES (blood volume, erythrocyte survival, test for pernicious anemia with radioactive vitamin B₁₂).

Radioisotopes in gastroenterology, (absorption of radioiodinated fat in malabsorption syndromes, radioiodinated Rose Bengal for liver function) have not lived up to early expectations. Renal function studies using radioactive sodium iodohippurate and other tests are now undergoing careful scrutiny.

SCARCELY a medical journal appears these days without at least one article based on radioisotopic technics. Every hospital and clinic asks itself whether it should start using radioisotopes and, if so, to what extent. The answer depends in part on the size of the institution, but mainly on the presence of an interested and qualified physician.

Certain diagnostic and therapeutic procedures involving radioactive materials are as established as is any other technic in the clinical pathology laboratory or the department of radiology.(1-3) A number of other methods are still too new to have been fully evaluated. The majority of scientific procedures utilizing radioisotopes are designed to study fundamental principles and have no immediate practical bearing. Only those of immediate practicality will be reviewed in this report.

RADIOIODINE AND THE THYROID

The ability of the thyroid to concentrate radioiodine is as sensitive a test of a hyperfunctioning thyroid as is available today.(4) Measurement of the nonradioactive protein-bound iodine (PBI) is more sensitive for sorting out problems of hypothyroidism.

That fraction of an oral dose of radioiodine which accumulates in the thyroid can be meas-

ured simply and accurately with relatively modest equipment. Since urinary and blood tests are not required, only an *in vivo* counting system is needed.

The classic test involves giving a dose of radioiodine to the patient in the morning and measuring its accumulation ("uptake") in the thyroid 24 hours later. Greater sensitivity is obtained by measuring the uptake after only 4 to 8 hours, but two visits in a day by the ambulatory patient may be inconvenient. If measurement at still shorter intervals is desired, the patient must be fasting (to avoid variably delayed intestinal absorption) or must receive the dose intravenously. Since diagnostic doses of radioiodine (I^{131}) are available from commercial sources in a dry state in capsules, I^{131} may not be on hand for intravenous use.

The 24-hour uptake of I^{131} will differentiate 80 to 90 per cent of thyrotoxic patients from euthyroidal ones, but the remaining 10 to 20 per cent are not clearly differentiated. Therefore, modifications of the I^{131} test have been proposed; among these, the following are particularly useful.

Intravenous Technic — Berson and associates(5) described a test whereby the uptake of I^{131} is measured for 30 minutes after the intravenous injection of I^{131} . Not only are the different functional states of the thyroid evident from such a recording (Fig. 1), but, by modest mathe-

Read at the meeting of the Tucson Medical Center, Tucson, Arizona, March 31, 1961.

Section of Biochemistry, Mayo Clinic and Mayo Foundation, Rochester, Minnesota.

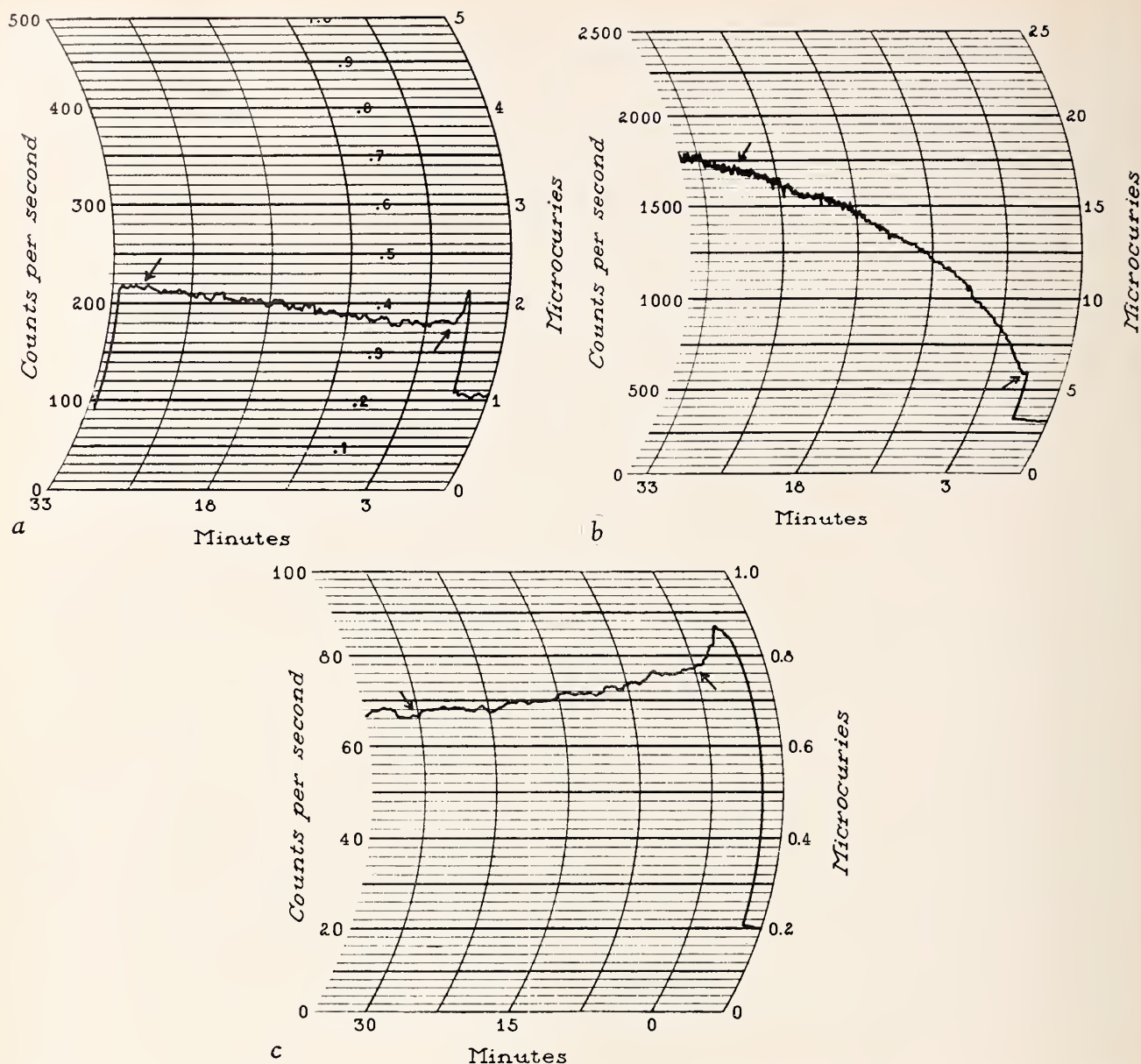


Fig. 1. Continuous recordings (right to left) of I^{131} in thyroidal region after 25-microcurie dose given intravenously. a. Normal state. b. Hyperthyroidism. c. Hypothyroidism. The clearance of I^{131} was calculated as 9, as 362 and as 0 ml. of plasma per minute, respectively. (Reproduced with the kind permission of the publishers, from Owen(1).)

mathematical analysis, the uptake may be converted into "clearance," that is, the number of milliliters of plasma cleared of I^{131} per minute.

Inhibition of Thyroid Uptake of I^{131} by Iodide — This procedure(6) involves the determination of conventional 24-hour uptakes before and 24 hours after the oral administration of 1 to 2 mg. of iodide. A normally functioning thyroid shows only slight inhibition from this amount of iodide. The thyroid of a patient who has Graves' disease exhibits at least a 50 per cent decrease in the uptake of I^{131} ; for example, the uptake may decrease from 60 per cent before the use of iodide to 25 per cent after such medication (Fig. 2).

Triiodothyronine (T_3) Inhibition Test(7) — This technic is based on studies by Werner and Spooner.(8) A normally functioning thyroid is sensitive to small doses of thyroxine or triiodothyronine (T_3), presumably by reduction of the secretion of thyroid-stimulating hormone (TSH) by the pituitary. The test consists of determining the standard 24-hour uptake of I^{131} , then giving the patient 50 micrograms of L-triiodothyronine daily for at least 3 or 4 days, and then again measuring the 24-hour uptake. Unlike the results of the iodide inhibition test, the uptake of a normal thyroid is inhibited by at least 50 per cent, whereas that of a hyperfunctioning gland is little affected (Fig. 3).

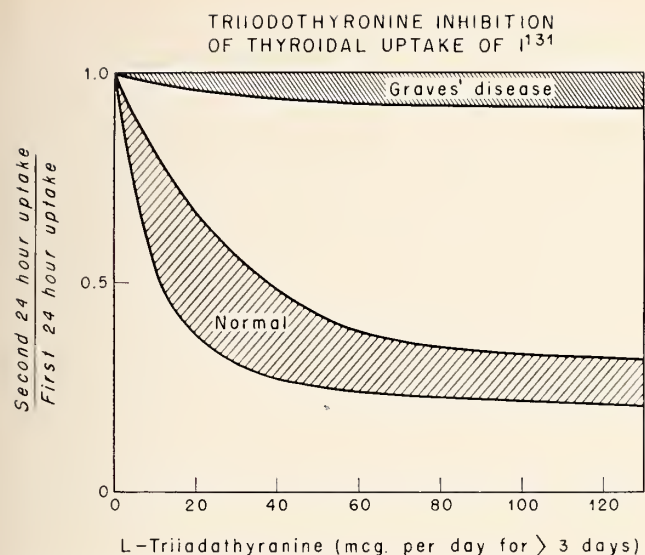


Fig. 2. Comparison of inhibition of thyroidal uptake of I¹³¹ in normal persons and in patients with Graves' disease after varying doses of potassium iodide given orally. (Illustration drawn from data published by Feinberg and associates(6).)

TSH Test(9) — Although designed to differentiate various types of myxedema, such as separating primary hypothyroidism from a hypo-functioning thyroid secondary to pituitary disease, this test is extremely useful for evaluating the patient who is receiving some form of thyroidal hormone. The question often is asked whether the patient really needs such hormonal treatment. If functioning thyroidal cells are present that do not take up I¹³¹ because of a lack of pituitary stimulation, then the injection of TSH, elaborated by the pituitary, usually discrimi-

nates between such a patient and one lacking a functioning thyroid. The latter cannot accumulate I¹³¹, but the former regains a more or less normal uptake of I¹³¹ for 1 or 2 days (Fig. 4).

Erythrocytic Uptake of T₃(10) — Plasma contains a specific protein for transporting thyroxine, but this protein has a limited capacity to bind thyroxine. Any excess of thyroxine spills over and is lightly bound to other plasma proteins. A patient with an abnormally increased PBI (thyrotoxicosis) has limited residual binding capacity, whereas the patient who exhibits a low value for PBI (myxedema) has a large available capacity to bind thyroxine. The test consists of adding I¹³¹-triiodothyronine (rather than thyroxine) to serum, followed by a suspension of erythrocytes. The lightly bound hormone becomes attached to the erythrocytes. Therefore, the more radioactivity is associated with the erythrocytes, the less thyroxine-binding capacity was available in the original serum, and the greater is the likelihood that the patient has hyperthyroidism. The test is technically difficult.

HEMATOLOGIC APPLICATIONS OF RADIOISOTOPES

The second major area of diagnostic radioisotopic tests is in the field of hematology. Three methods are commonly used.

RISA Blood Volume — All technics of measuring blood volume depend on the "dilution" principle. A known amount of a readily measured substance is given to the patient by vein. After a wait of 5 to 10 minutes to permit reasonably thorough mixing, a sample of blood is drawn and the amount of the injected substance in the blood is measured. The blood volume is related to the dilution of the injected substance as follows: dose ÷ amount of substance per milliliter of blood = blood volume expressed in milliliters. The appeal of using human albumin labeled with I¹³¹ (RISA or RIHSA, which are abbreviations for "radioiodinated human serum albumin") is the ease of measuring I¹³¹. Actually, the dye methods are as accurate, but are somewhat more difficult technically.

Erythrocytic Survival Measured by Radiochromium(11) — Since erythrocytes are easily labeled with radiochromium (Cr⁵¹) in the test tube, the survival of circulating erythrocytes can be followed by measuring the radioactivity

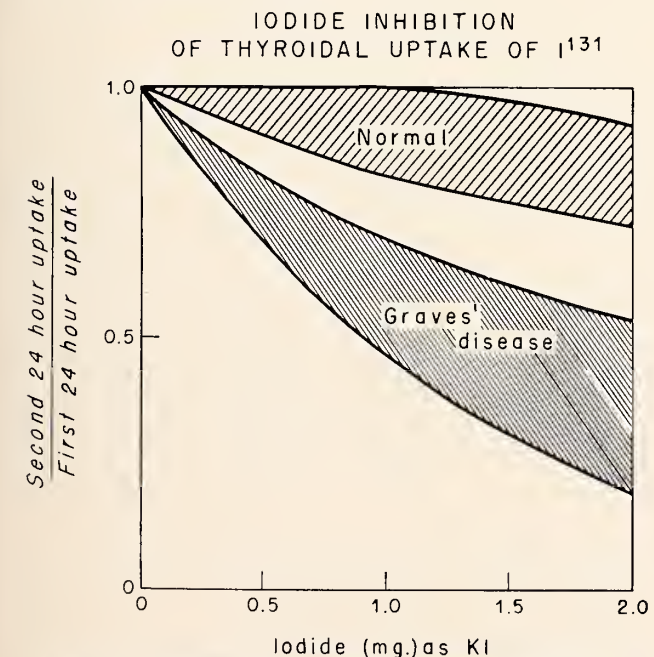


Fig. 3. Comparison of inhibition of thyroidal uptake of I¹³¹ in normal persons and in patients with Graves' disease after varying doses of L-triiodothyronine given for 3 to 5 days. (Illustration drawn from data published by McConahey and Owen(7).)

Original Articles

in the blood every few days after the labeled cells are returned to the patient's blood stream. effect of this injection is to "flush" part of the

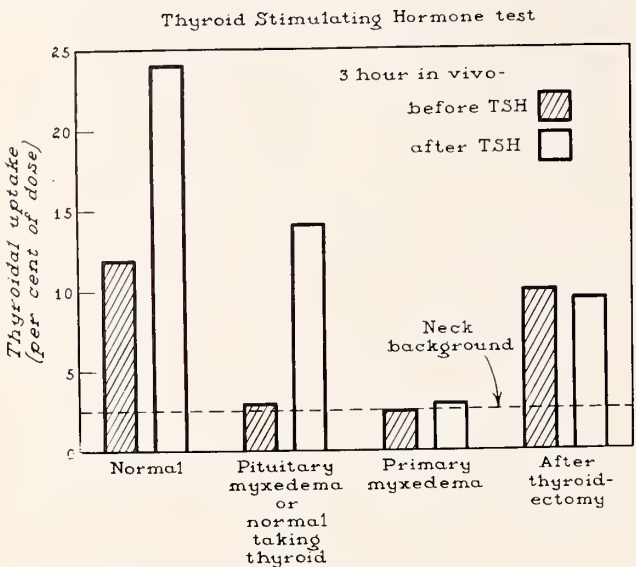


Fig. 4. Response of thyroid to subcutaneous injections of 10 units of bovine TSH. The uptakes of I^{131} were measured 3 hours after oral doses of radioiodine. The "normal" category indicates a normal uptake before use of TSH and an exaggerated response afterward, suggesting that the thyroid is not maximally stimulated by TSH under normal conditions. Patients with suppressed thyroidal activity (pituitary myxedema or treatment with exogenous thyroidal hormone) had no uptake of I^{131} before and a normal uptake after TSH. Patients lacking functional thyroidal tissue (primary myxedema) could not be stimulated by TSH. The fourth type of response apparently reflects a limited number of thyroidal cells all functioning maximally, so that no further response to TSH is possible. (Reproduced with the kind permission of the publishers, from Owen (1).)

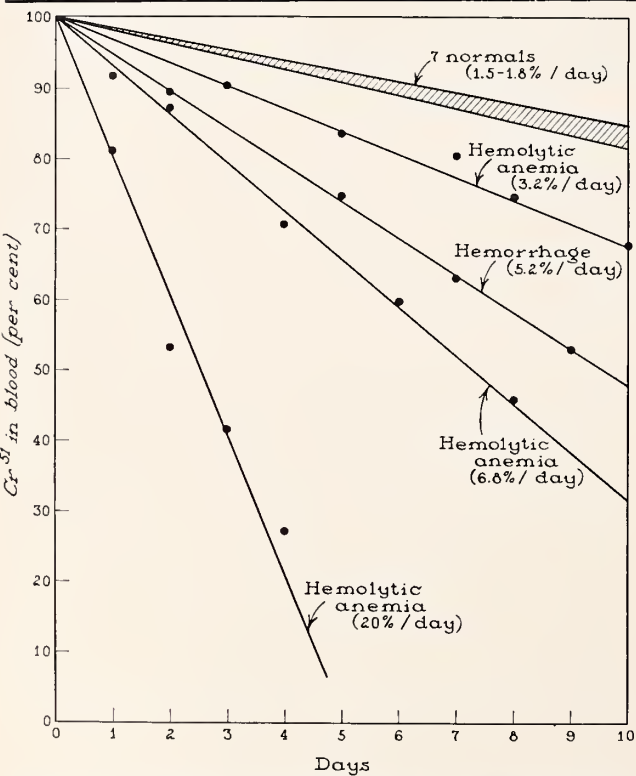


Fig. 5. Varying rates of disappearance of Cr^{51} -labeled erythrocytes from circulation of four patients and seven controls. Note that the curve of the one patient with pronounced intestinal hemorrhage and no hemolytic anemia is indistinguishable from the curves of the three patients who had hemolytic anemia. (Reproduced with the kind permission of the publishers, from Owen(1).)

At least 2 weeks are required for accurate evaluation of erythrocytic survival. In a normal person, the radioactivity of the blood diminishes at a rate of about 1.5 to 2 per cent per day. Patients who have hemolytic anemia exhibit faster rates, up to as much as 50 per cent per day. One note of caution is indicated. Since the test measures only the loss of Cr^{51} from the blood, hemorrhage may give a curve simulating that of hemolytic anemia (Fig. 5). A routine check of the patient's stools for fecal loss of Cr^{51} is often indicated.

Radioactive Vitamin B₁₂ Test for Pernicious Anemia — This is the Schilling test.(12) The availability of vitamin B₁₂ labeled with radiocobalt (Co^{60} , Co^{58} or, preferably, Co^{57}) affords a simple means of evaluating the presence or absence of intrinsic factor in a patient suspected of having pernicious anemia. If the radioactive vitamin B₁₂ is given orally, it can be absorbed only if intrinsic factor is present. If it is absorbed, the vitamin B₁₂ tends to concentrate in the liver unless a large dose (1,000 micrograms) of nonradioactive vitamin B₁₂ is injected. The absorbed radioactive vitamin into the urine. Thus, if a significant amount of radioactivity is found in a 24-hour collection of urine, the radio-

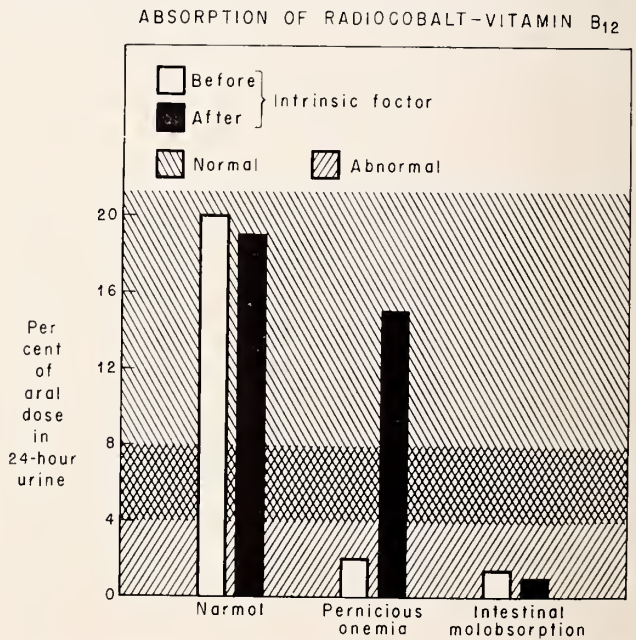


Fig. 6. Schilling's test, showing urinary excretion of radiocobalt in normal person, one with pernicious anemia and one with sprue after oral dose of radioactive vitamin B₁₂. The normal person did not respond to added intrinsic factor, because absorption of vitamin B₁₂ was maximal; the patient with sprue was unable to absorb the vitamin despite the presence of intrinsic factor; the response of the patient with pernicious anemia is entirely characteristic. (Illustration drawn from data published by Bull and co-workers(13).)

active vitamin must have been absorbed and the patient must not have pernicious anemia. On the other hand, if negligible radioactivity appears in the urine, the patient either lacks intrinsic factor or has a defect in intestinal absorption. These conditions may be distinguished by repeating the test with the addition of a commercial preparation of intrinsic factor to the second dose of radioactive vitamin B₁₂. Under these circumstances, the patient with pernicious anemia should have a normal amount of radio-cobalt in the urine, whereas the patient with an intestinal absorptive defect continues to excrete little of the radioactive vitamin in the urine (Fig. 6).

RADIOISOTOPES IN GASTROENTEROLOGY

The two widely used radioisotopic tests for evaluation of gastroenterologic function have not come up to early expectations.

Absorption of Radioiodinated Fat (13,14) — As a measure of malabsorption syndromes, measurement of the absorption of radioiodinated fat (triolein) falls short of the sensitivity of quantitative fat analysis of stools. Thus, a patient with sprue taking a daily diet that includes 100 gm. of fat is likely to have “negative” results with this test employing radioactive fat unless at

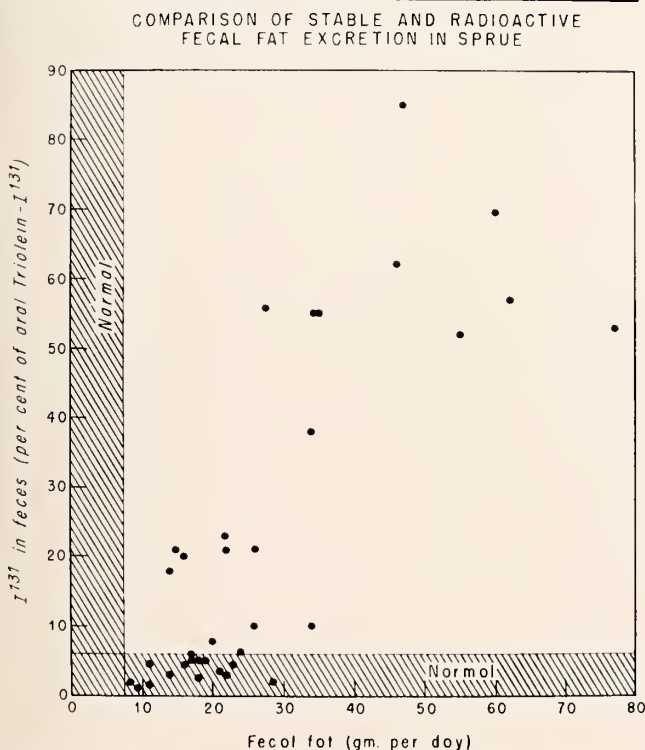


Fig. 7. Comparison of fecal fat with fecal excretion of I¹³¹ after oral dose of radioiodinated triolein. The radioactive test is insensitive in the region of mild steatorrhea (less than 30 gm. of fat excreted per day). (Illustration drawn from unpublished data of Moertel and associates(15).)

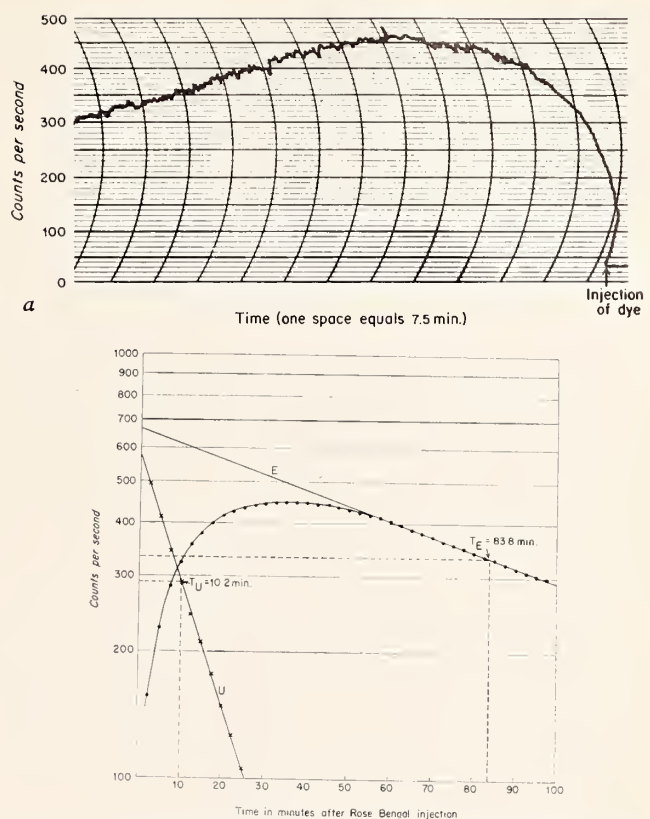


Fig. 8. Hepatic uptake and excretion of Rose Bengal-I¹³¹ measured externally. a. Actual tracing (right to left) after intravenous administration of dye. b. Tracing reproduced (left to right) on semilogarithmic paper, with calculations of hepatic uptake (T_U) and excretion (T_E). In this case, the dye was concentrated by the liver at a rate of about 7 per cent per minute and excreted about one-eighth as fast. (Reproduced with the kind permission of the publishers, from Moertel and Owen(17).)

least 30 gm. of fat appears in the stools. Since a normal person excretes less than 10 gm. of fat on such a diet, it is apparent that milder steatorrheas will not be uncovered by this triolein test(15) (Fig. 7).

Radioiodinated Rose Bengal for Liver Function (16) — This dye, when given intravenously, is treated by the body much as is sulfobromophthalein (BSP). The liver extracts the dye from the blood and excretes it into the bile. Both these phases are measurable by directing a radiation detector toward the liver at the time of the injection of the radioactive dye; only the extraction phase is measured by the conventional BSP test (Fig. 8). Despite this, a comparison of BSP with radioactive Rose Bengal in a series of non-jaundiced patients with hepatic damage reflected unfavorably on the radioactive dye(17) (Fig. 9).

RENAL-FUNCTION STUDIES

Use of radioactive sodium iodohippurate (hippuran) has been proposed recently as a sensitive test of renal function. At first, the excretion of radioactive iodopyracet (diodrast) was used(18),

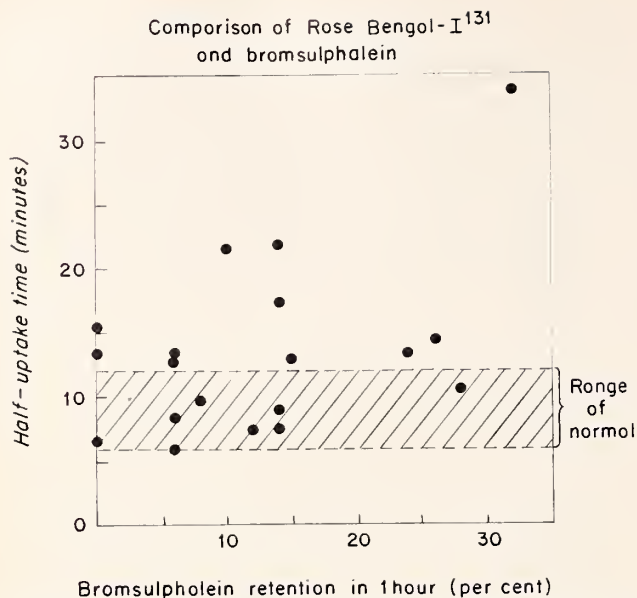


Fig. 9. Comparison of BSP test (retention of BSP in blood 1 hr. after dose of 5 mg. per kilogram of body weight) with hepatic uptake (T_u) of radioiodinated Rose Bengal (see Fig. 8). Two patients had abnormal values for Rose Bengal, but normal levels of BSP. Conversely, seven patients, all with abnormal retention of BSP, had normal results with the Rose Bengal technic. (Reproduced with the kind permission of the publishers, from Moertel and Owen(17).)

and the radioactivity was measured with paired external counters placed over the kidneys. Since the liver also concentrates diodrast, the radiation counters had to be directed away from the liver and yet arranged to survey the kidneys adequately. The apparent success with diodrast evidently applies to radioiodinated hippuran(19), which is not directly involved in hepatic metabolism. With the use of hippuran, one can compare the vasculature, concentrating ability and

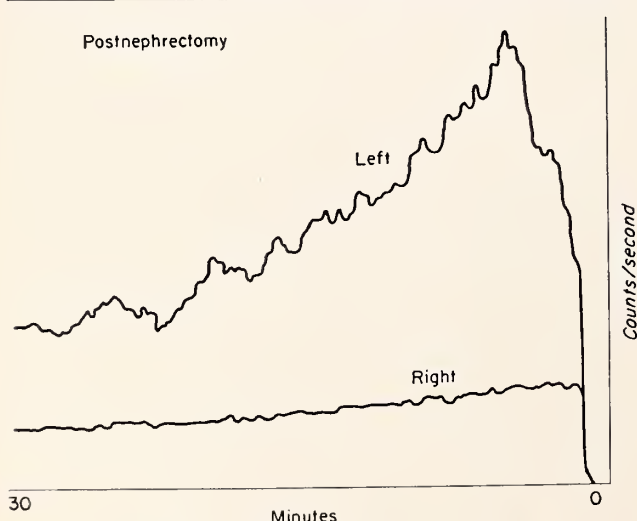


Fig. 10. Radioactivity over renal regions of back recorded simultaneously by two matched radiation detectors after intravenous administration of I^{131} -hippuran. The tracings (right to left) show no activity on the right (post-nephrectomy) and a hypernormal ("compensatory") uptake on the left. Radioactivity in the kidney decreased as the dye was excreted into the urine. (Data kindly furnished by Dr. W. N. Tauxe, Section of Clinical Pathology.)

secretory function of the two kidneys. Preliminary results with this technic have been encouraging (Fig. 10).

OTHER DIAGNOSTIC APPLICATIONS OF RADIOISOTOPES

Many other procedures utilizing radioisotopes are undergoing careful scrutiny, and some of these technics probably will advance from the experimental bench to the diagnostic laboratory. Among the more promising procedures are the following: Evaluation of ocular tumors with radiophosphorus; localization of brain tumors with that interesting class of radioactive substances, such as radiocopper and radioarsenic, that emit positrons (positively charged electrons); measurement of the amount of sodium and potassium in the body; measurement of blood flow and, particularly, cardiac output with radioiodinated albumin; measurement of survival of leukocytes and platelets based on labeling these cells with radioactive materials; estimation of the viability of skin grafts and other tissues that have compromised blood vessels.

CONCLUSION

The greatest need today in the development of new tests involving radioisotopes for diagnostic purposes is a much larger group of physicians interested in both clinical and laboratory medicine and well qualified in the principles and instrumentation of radioisotopes.

REFERENCES

1. Owen, C. A. Jr.: Diagnostic Radioisotopes. Springfield, Illinois, Charles C. Thomas, Publisher, 1959, 425 pp.
2. Beierwaltes, W. H., Johnson, P. C., and Solari, A. J.: Clinical Use of Radioisotopes. Philadelphia, W. B. Saunders Company, 1957, 456 pp.
3. Fields, Theodore, and Seed, Lindon: Clinical Use of Radioisotopes. Chicago, Year Book Publishers, Inc., 1957, 455 pp.
4. McConahey, W. M., Owen, C. A. Jr., and Keating, F. R. Jr.: A Clinical Appraisal of Radioiodine Tests of Thyroid Function. *J. Clin. Endocrinol.* 16:724-734 (June) 1956.
5. Berson, S. A., Yalow, Rosalyn, S., Sorrentino, Joseph, and Roswit, Bernard: The Determination of Thyroidal and Renal Plasma I^{131} Clearance Rates as a Routine Diagnostic Test of Thyroid Dysfunction. *J. Clin. Invest.* 31:141-158 (Feb.) 1952.
6. Feinberg, W. D., Hoffman, D. L., and Owen, C. A. Jr.: The Effects of Varying Amounts of Stable Iodine on the Function of the Human Thyroid. *J. Clin. Endocrinol.* 19:567-582 (May) 1959.
7. McConahey, W. M., and Owen, C. A. Jr.: Studies of the Inhibitory Effect of L-Triiodothyronine on Thyroidal I^{131} Uptake in Euthyroid Persons and Patients with Exophthalmic Goiter. *J. Clin. Endocrinol.* 16:1480-1486 (Nov.) 1956.
8. Werner, S. C., and Spooner, Maryloo: A New and Simple Test for Hypothyroidism Employing L-Triiodothyronine and the 24-Hour I^{131} Uptake Method. *Bull. New York Acad. Med.* s. 2, 31:137-145 (Feb.) 1955.
9. Jefferies, W. McK., Levy, R. P., Palmer, W. G., Storaski, J. P., and Kelly, L. W. Jr.: The Value of a Single Injection of Thyrotropin in the Diagnosis of Obscure Hypothyroidism. *New England J. Med.* 249:876-884 (Nov. 26) 1953.

10. Hamolsky, M. W., Stein, Myron, and Freedberg, A. S.: The Thyroid Hormone-Plasma Protein Complex in Man. II. A New In Vitro Method for Study of "Uptake" of Labelled Hormonal Components by Human Erythrocytes. *J. Clin. Endocrinol.* 17:33-44 (Jan.) 1957.

11. Ebaugh, F. G. Jr., Emerson, C. P., and Ross, J. F.: Use of Radioactive Chromium 51 as Erythrocyte Tagging Agent for Determination of Red Cell Survival In Vivo. *J. Clin. Invest.* 32:1260-1276 (Dec.) 1953.

12. Schilling, R. F., Clatanoff, D. V., and Korst, D. R.: Intrinsic Factor Studies: Further Observations Utilizing the Urinary Radioactivity Test in Subjects With Achlorhydria, Pernicious Anemia, or a Total Gastrectomy. *J. Lab. & Clin. Med.* 45:926-934 (June) 1955.

13. Bull, Frances E., Campbell, D. C., and Owen, C. A. Jr.: The Diagnosis and Treatment of Pernicious Anemia. *M. Clin. North America*, July, 1956, pp. 1005-1014.

14. Shingleton, W. W., Wells, M. H., Baylin, G. J., Ruffin, J. M., and Saunders, Aaron: The Use of Radioactive-Labeled Protein and Fat in the Evaluation of Pancreatic Disorders: Sur-

gery in the Evaluation of Pancreatic Disorders. *Surgery* 38:134-142 (July) 1955.

15. Moertel, C. G., Scudamore, H. H., Wollaeger, E. E., and Owen, C. A. Jr.: Limitations of the ^{131}I -Labeled Triolein Tests in Diagnosis of Steatorrhea. (In press.)

16. Taplin, G. V., Meredith, O. M. Jr., and Kade, H.: Radioactive (^{131}I -Tagged) Rose Bengal Uptake-Excretion Test for Liver Function Using External Gamma-Ray Scintillation Counting Techniques. *J. Lab. & Clin. Med.* 45:665-678 (May) 1955.

17. Moertel, C. G., and Owen, C. A. Jr.: Evaluation of the Radioactive (^{131}I -Tagged) Rose Bengal Liver Function Test in Nonjaundiced Patients. *J. Lab. & Clin. Med.* 52:902-908 (Dec.) 1958.

18. Winter, C. C.: A Clinical Study of a New Renal Function Test: The Radioactive Diodrast Renogram. *J. Urol.* 76:182-196 (Aug.) 1956.

19. Nordyke, R. A., Tubis, Manuel, and Bland, W. H.: Simultaneous Comparison of Individual Kidney Function Using Radioiodinated Hippuran. (Abstr.) *Clin. Res.* 8:16 (Jan.) 1960.

W. B. SAUNDERS COMPANY features the following recent books elsewhere in this issue:

FONTANA and EDWARDS — CONGENITAL CARDIAC DISORDERS

a vital statistical study to aid you in a better understanding of malformations of the heart.

WILLIAMS — Textbook of ENDOCRINOLOGY

a definitive source emphasizing the effects of endocrine changes on body metabolism.

1962 CURRENT THERAPY

today's best treatments — ranging from external cardiac massage for cardiac arrest through current use of antibiotics in treating bacterial infections.

Management of Those Aching Joints

L. Maxwell Lockie, M.D.

The author presents a straightforward, well organized review of a major medical problem besetting most elder citizens. The promise of the title is amply fulfilled.

THE THREE most common types of arthritis which affect the elderly are gouty arthritis, rheumatoid arthritis, and osteoarthritis. During the past 25 years, great advances have been made in both the diagnosis and treatment of these types of arthritis. By definition, arthritis signifies anything which is abnormal in or around a joint. This may involve swelling, pain, stiffness, warmth, or the inability to go through a complete range of motion.

Gout now is diagnosed frequently, and with greater accuracy than it was 20 years ago. In order to make a correct diagnosis, the following conditions must be considered:

1. The pattern of the acute attack is typical, inasmuch as the onset always proceeds rapidly within two to three hours to its maximum painful intensity. Other forms of arthritis undulate and will take longer to reach this maximal painful period, usually over a period of days or weeks.

2. When uric acid tophi are present in the bone or under the skin, these are definitely diagnostic of gout.

3. An acute attack of arthritis which responds promptly to large doses of colchicine is characteristic of gout only. Other forms may improve partially, but not to the state of complete recovery, such as occurs in gout.

4. An elevated serum uric acid is strong confirmatory evidence of the presence of gout.

TREATMENT

Treatment for the acute attack consists of the following:

1. Colchicine still remains the most commonly used medication. It is given up to tolerance, that

is two 0.5 mg. tablets every two hours until nausea or a loose bowel movement occurs. Then it must be stopped.

2. Butazolidin — 200 mg. taken every two hours for four doses and repeated the following day if necessary, will bring about complete relief in most patients, and without gastro-intestinal symptoms. In our experience, no side effects of any kind have been detected when giving Butazolidin in this two-day program.

3. ACTH — 100 units intramuscularly, or 20 units intravenously daily, will control the most severe gouty arthritic episodes. Colchicine — 0.5 mg. twice daily should be given to prevent rebound attacks.

4. The adrenal cortical steroids recently have been found to be very effective. In our experience, triamcinolone (Aristocort) — 8 mg. every two hours for four doses, to be repeated the following day if necessary, usually brings about prompt relief. Here too, the use of small amounts of colchicine, such as 0.5 mg. twice daily, should be given to prevent rebound attacks.

PREVENTION

One of the greatest advances in the treatment of gouty arthritis has been the prevention or modification of future gouty arthritic episodes. In general, the program consists of the following:

1. Colchicine—0.5 mg. and probenecid—0.5 gm. twice daily. The colchicine is given to abort mild attacks and the probenecid to lower the level of the serum uric acid by 30 per cent. Approximately 80 per cent of people started on probenecid are able to take it satisfactorily. However, there are a few in whom there are constitutional reactions, and some who do not respond to the drug. In the 20 per cent who

Presented at the "Symposium on Medical and Surgical Problems in Old Folks," The Hotel Westward Ho, Phoenix, Arizona, March 18, 1961.

require other uricosuric agents such as sulfinpyrazone (Anturan) — 100 mg. 4 times daily, can be substituted in place of the probenecid.

2. Patients taking probenecid should not use any salicylates, as the action of these two drugs on uric acid excretion is antagonistic. Also, in the very stubborn gouty problem, the combination of probenecid with other uricosuric agents mentioned below, gives an additive uricosuric reaction. It is important that patients take at least three quarts of fluids daily. In those who have a tendency to form uric acid stones, the urine reaction should be alkaline.

3. The diet should be adjusted so that the patient maintains proper body weight for his age and build. In general, it should be low in purine and low in fat. The foodstuffs to be omitted are liver, kidney, sweetbreads, anchovies, sardines and thick meat soups.

4. Concerning liquor, in my experience, it is best that fermented beverages be omitted entirely, and that no more than two ounces of so-called hard liquors be consumed per day.

RHEUMATOID ARTHRITIS

Another form of arthritis which is apt to affect patients over the age of 65 is rheumatoid arthritis. In this age group, the onset usually is fairly rapid, with involvement of several joints within a period of several weeks.

The diagnosis is easily made, using the following criteria as various joints are involved:

1. Hands — involvement of the metacarpal-phalangeal joints are diagnostic of rheumatoid arthritis. They are not afflicted in osteoarthritis.

2. Wrists — if the ulnar aspect of the wrist is swollen and painful, this finding points to rheumatoid arthritis.

3. Frequently the elbows cannot be extended completely, which also suggests rheumatoid arthritis strongly, unless there is a history of trauma or gout.

4. When there is considerable fluid present in the knee joint, the most likely diagnosis again is rheumatoid arthritis.

The laboratory findings may be of help:

1. The blood sedimentation rate frequently is increased.

2. The white blood count may be slightly increased.

3. The hematocrit and red blood count usually are below normal.

4. The blood serum in 65 per cent to 85 per cent of adult rheumatoid arthritis patients will give a positive test for the rheumatoid arthritis factor, depending upon which laboratory does the procedure and which test is used.

5. X-rays are extremely helpful in some instances.

TREATMENT

Treatment consists of a broad program of management, which is outlined to the patient and to an accompanying, responsible member of the family, following the complete work-up of the patient. The following factors are important:

1. It is highly advisable that a period of complete bed rest be instituted, preferably in the hospital for three weeks, to indoctrinate the patient into the program of treatment. No weight bearing is allowed. One pillow is permitted for the head and another is put into the bed at the foot, to keep the pressure of bed clothes off the toes.

2. Salicylates are given in large amounts, every three to four hours.

3. Daily physical therapy includes mild forms of heat, such as infra-red, hot packs, paraffin baths and the baker. In addition, non-weight bearing muscle exercises are taught so that the patient can do them at intervals while in bed in his room. These exercises consist of rhomboid, gluteal and quadriceps setting, which help to maintain muscle tone.

4. Gold salt therapy is a most important part of this program. Gold sodium thiomalate (Myochrysine) is used at weekly intervals. It is given through a 24-gauge one-inch needle, into the deltoid muscle. The first weekly dose is 10 mg., the second 20 mg., and thereafter, 40 mg. is given per week, until 750 mg. have been administered. At this point, a decision must be made as to whether the same dose should be continued in those patients who have not improved satisfactorily, whereas in those patients who are doing well, the dose per week is decreased gradually to 10 mg., after which time the interval between injections is increased gradually, so that he will take 10 mg. monthly forever. It is necessary to do a blood count and a urinalysis at monthly intervals. Also, before each injection, the patient is asked if he has any itching of the skin, or soreness of the mouth. These signs point toward sensitivity to the gold by the patient, whereupon

Original Articles

the dosage should be decreased or stopped, depending upon the manifestations by the patient. If the patient is very sensitive to gold and experiences a severe reaction to it, the use of adrenal cortical steroids or BAL quickly counteracts these manifestations.

5. Concerning the use of adrenal cortical steroids, it is my policy to consider them seriously under the following conditions:

a) If a child or adult has severe systemic rheumatoid disease, he must be given steroids in large amounts in order to counteract the effects of these manifestations and in some cases, to save his life.

b) Those patients who have episodic rheumatoid arthritis, lasting three to six weeks, can be given the adrenal cortical steroids during these flare-ups.

c) Patients who have severe generalized rheumatoid arthritis frequently derive great benefit from small amounts.

d) Those patients who are in a physical rehabilitation program may find it easier to follow instructions when adrenal cortical steroids are used for a few weeks at the beginning of treatment.

e) Those who do not do well, even though they have followed the program faithfully, may be given small amounts, such as 4 to 8 mg. prednisone in divided doses daily for some relief of symptoms.

f) The last indication for the steroid is in those people who have one or two very actively involved joints, especially the fingers, knees and feet. Intra-articular administration at varying intervals frequently affords great relief.

By following this program as outlined above, the patients with rheumatoid arthritis have 57 per cent chance for complete recovery or marked improvement, whereas only 7 per cent become worse.

OSTEOARTHRITIS

The third type of arthritis which affects this age group is osteoarthritis. Here, the onset of symptoms usually is insidious. In many instances, it is initiated within two years, plus or minus menopause, in the female. The diagnosis can be made on the following data:

1. Involvement of the distal interphalangeal joints, as well as the carpal metacarpal joint of the thumb is almost always indicative of osteoarthritis.

2. When the knees are involved, usually there is very little fluid present, and most often, the knee joint has full range of motion. If fluid is present, as it may be in small amounts, when aspirated and allowed to drop from a pipette, there is a tendency for this to "string" in a thin thread, several feet long.

3. Laboratory studies are usually normal.

4. X-ray examination may be extremely helpful.

TREATMENT

Treatment consists of the following:

1. Rest to the involved joints. If the hands are involved, the patient is encouraged not to knit, tat or crochet, or to use rubber balls to keep the hands limber. With knee symptoms, prolonged walking is discouraged. Those patients with back complaints are instructed to sleep on a firm mattress and to sit in proper chairs, avoiding lounging chairs or a davenport.

2. Most patients are overweight. This condition must be corrected. In my experience, if the knees are involved in an obese patient, little improvement is to be expected until weight reduction has occurred.

3. Salicylates are excellent for giving relief to the painful joints.

4. Heat, in the form of infra-red, paraffin or the baker, should be used twice daily, during acute episodes.

5. The intra-articular use of adrenal cortical steroids is indicated in the treatment of many of these painful joints.

SUMMARY

The management of "those aching joints" in the elderly patient is very much more satisfactory now than it was 20 years ago, at which time new impetus was given to the study of the various forms of arthritis. Now, the physician is well educated so that the proper diagnosis can be made and also he is able to outline the appropriate plan of therapy.

The average Arizona Blue Cross hospital stay is just over 6 days.

Prophylactic and Therapeutic Measures in Strictures of The Common Duct

Warren H. Cole, M.D.

This is a good review of this problem by one who can speak with authority, one whose name appears in the Graham-Copher-Cole test and who is instrumental in our obtaining a better understanding of this clinical problem which is of increasing frequency. As all who work in this field, he again highlights the necessity for good technique and prevention of injury rather than dependence upon repair of the damaged organs.

ALTHOUGH much time and energy has been devoted to the surgical care of patients with stricture of the common duct, this lesion still remains a difficult one to prevent completely and to treat.

ETIOLOGY OF STRICTURES

It is well known that about two-thirds of common duct strictures are related primarily to operative trauma. They are observed in patients having cholecystectomy and not cholecystostomy or choledochostomy. During a cholecystostomy, the surgeon is rarely operating deep enough in the abdominal cavity to inflict damage on the common duct. During choledochostomy, he obtains sufficient visibility of the duct to prevent damage to it. The usual history is that the cholecystectomy was a simple one requiring only a short amount of time. Occasionally, the damage is inflicted during operation for acute cholecystitis, but these are comparatively few in our list in about 150 strictures.

In about 20 per cent of patients, we have identified the lesions as inflammatory. In this group of patients, there was no evidence of obstruction for three or four months; the jaundice appeared three to six months after operation. With the jaundice, there was only mild pain; occasionally there was a history of an attack of fever with a chill. It appears likely that in this

group of patients, mild trauma to the common duct, perhaps by application of a suture through the edge of the duct, was a possible etiologic factor. Another important etiologic factor in this group would be the collection of some bile over the common duct or an abscess in this area; in either of these situations, enough inflammation would be produced to result in considerable fibrosis and possibly a subsequent stricture of the duct. In eight cases, the stricture was secondary to chronic fibrosing pancreatitis. For some strange reason, most of these eight cases were observed in the early period when we were studying this disease; we have encountered only one due to pancreatitis during the past five years.

INDICATIONS FOR OPERATION

When the damage to the duct is detected at operation, it should obviously be repaired. This repair would usually consist of an end-to-end anastomosis (if complete section), or suture of a laceration. If the duct has been incised or torn, and the damage not recognized at operation, there will be a profuse flow of bile beginning a day or two after operation. If the entire duct is severed, all of the hepatic output will drain to the outside. If the duct has been ligated, there will usually be no drainage of bile to the exterior, but the patient will become jaundiced about 48 hours after operation. Under either of these circumstances, the surgeon must consider the possibility of operative trauma, and make

Presented at the Arizona Chapter of the American College of Surgeons' Fall Clinical Congress, Tucson.
From the Department of Surgery, University of Illinois College of Medicine, Chicago, Illinois.

Original Articles

the diagnosis as soon as possible. The best way to obtain confirmation of damage is to watch the color of the stool. A variable amount of bile-stained stool will be left in the intestinal tract from the time preceding operation. However, an enema on the second or third day should evacuate all of this residual stool. If a complete obstruction is present, enemas thereafter will usually yield alcoholic stools. If there is good evidence that trauma to the duct has been produced, immediate repair, that is, within six to eight days of the primary operation, is indicated. If more time than this is allowed to lapse after operation, the adhesions are apt to be so dense and vascular that a second operation becomes very difficult, and sometimes hazardous.

ONE REPAIR

If the patient has had one repair for stricture of the common duct and there is early evidence of a recurrence, including an occasional attack of fever, jaundice and chill, the surgeon must always consider the possibility of urgency of repair. However, since some patients have one or two attacks of jaundice and fever during the early postoperative period (i.e. up to one year), and then have no additional difficulty, the surgeon must not advise repair after the first attack. If the patient has had several attacks of jaundice, and the attacks are becoming more common, there may be definite indications for operation, particularly if the present attack of jaundice has lasted for over a week.

On certain occasions when repair has been difficult, as in patients with a short stump of the common duct embedded in the hilus of the liver, we are reluctant to submit the patient to another operation. The patient must be observed for the development of certain manifestations. If the liver is enlarging and there is evidence of hepatic insufficiency with the usual liver function tests, the surgeon must not delay any longer because of danger of an irreversible hepatitis. Enlargement of the spleen is likewise an indication for urgency of repair. We have found the thymol test, the cephalin flocculation test, the BSP test, and the albumin-globulin ratio to be the most useful in determining hepatic damage in such cases. We have had three patients in our series who developed an irreversible serious hepatitis and finally died, in spite of the fact that our last operation had been successful in relieving the obstruction (See Fig. 1).

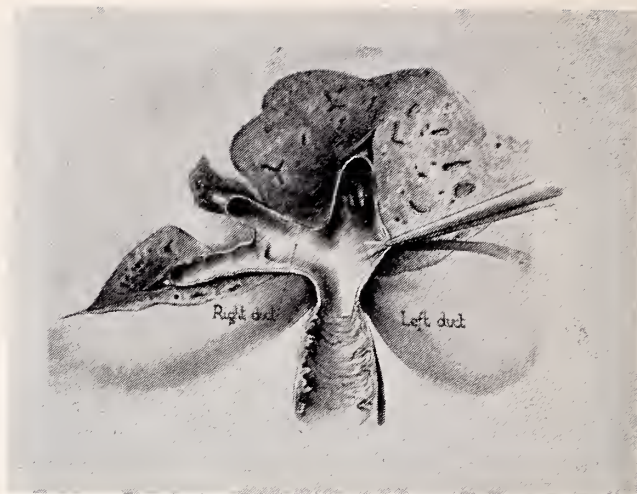


Fig. 1. This patient had three or four operations for stricture. During the two years preceding death, she had an enlarged liver with numerous attacks of chills, fever and jaundice. Following the last repair a few months before death, there was no decrease in symptoms, but autopsy revealed the stricture had apparently been cured; nevertheless the hepatitis was so far advanced that the patient died from hemorrhage (vitamin K deficiency) in spite of intense therapy. Note the patent anastomosis and the clot in the intrahepatic duct. (After Cole in Amer. Surgeon).

TECHNIQUE OF REPAIR

During the past 15 to 20 years, numerous types of repair have been recommended. However, three of this large number remain as the most popular ones and discussion will be limited to those three.

Almost all surgeons, regardless of which of these types they favor, will recommend an *end-to-end anastomosis* if the two ends of the duct can be found. It is of course essential to find the proximal duct, otherwise no type of repair at the hilus will be possible. With persistence, the stump can be found in 95 per cent of cases, or more. Important in the technique of finding the duct is the dissection up toward the hilus, taking care not to injure the portal vein in the floor of the exposed cavity. The author has found aspiration of doubtful structures with a syringe and needle to be extremely valuable. Aspirating over the distal end of the duct however, will not be of much value since there will not be any bile in it. The value of aspiration lies in location of the proximal duct and the location of major arteries and veins. If the duct is not found in the hepatoduodenal ligament, aspiration must then be carried out in the hilus of the liver. In this area, it is particularly important to aspirate at various points to locate vessels before incision is made into the duct, once it is found. Often the proximal duct is buried in liver tissue at the hilus, and it is essential to excise a few grams of liver tissue to expose the stump of the duct. During this procedure it is particularly

important to aspirate, and locate vessels, lest important ones be cut during exposure of this proximal stump.

When the distal end of the common duct is found, and it reaches the proximal end without tension, all surgeons will agree that an *end-to-end anastomosis* should be performed. This should be accomplished with mobilization of a minimal amount of duct, although the duct must be mobilized for quite some distance to make the ends meet. There is great danger of destroying the blood supply to such a degree that ischemic necrosis will develop, and the stricture therefore will recur. In performing an end-to-end anastomosis, we prefer to use interrupted 5-0 silk placed close enough together to prevent leakage. We do not believe that any more than one row is necessary. There is a great danger of reformation of stricture at the line of anastomosis when an anastomosis is done in an infected duct. To minimize or prevent reformation of the stricture, a T-tube is often inserted into the duct, as will be described later.

Roux-Y Anastomosis — When an end-to-end anastomosis cannot be accomplished, I prefer the use of a Roux-Y arm of jejunum to act as a conduit from the proximal stump of the duct into the intestinal tract.(1) After the duct has been found and opened, the jejunum is then anastomosed to the duct in an end-to-end fashion (See Fig. 2). The proximal arm of the jejunum is anastomosed to the distal arm about 18 in.

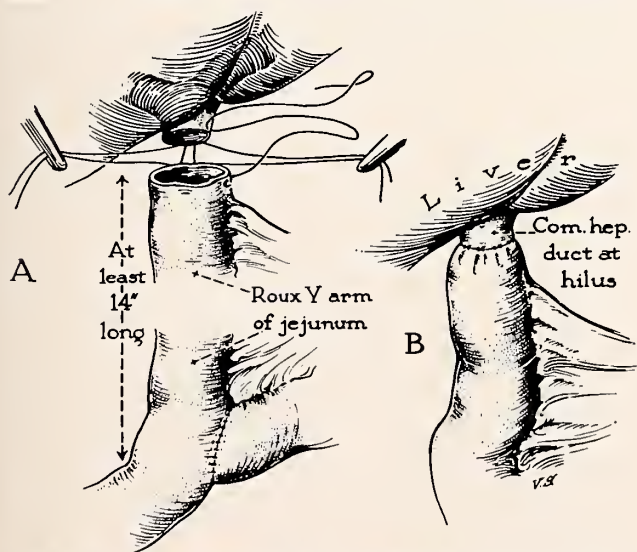


Fig. 2. Repair of stricture by anastomosing the hilar duct to the end of a Roux-Y arm of jejunum when the distal end of the duct cannot be found. A. Interrupted mattress sutures of fine silk are taken through the common duct and jejunum as illustrated. B. Appearance of the suture line after all sutures are tied. The hilar duct is not always as large as shown. When it is smaller, a smooth junction will not be achieved so readily. (From Cole, W. H., Ireneus, C. Jr., and Reynolds, J. T.: *Ann. Surg.*)

distal to the point of section. This area of anastomosis will obviously be below the mesocolon. For end-to-end anastomosis between the proximal duct and the end of the jejunum, we advise the use of interrupted 4-0 silk alternating with 5-0 silk. We believe it is important not to place the suture in the duct through the entire wall lest the foreign body reaction encourage stone formation, or perhaps a leak. Here again the suture line should be inspected closely to make sure it is watertight; leakage of bile is highly undesirable, but does not necessarily prevent a good result.

Anastomosis Between the Hilar Duct and Duodenum — Walters(2) favors this method of repair and believes he obtains better results with it than with other methods. We have used it on several occasions, but prefer the Roux-Y arm technique.

Anastomosis Between the Hilar Duct and Loop of Jejunum — Cattell(3) favors the use of this procedure for most of his repairs. For a time we utilized this method, but changed to the use of the Roux-Y arm because in two or three cases we noted that regurgitation of intestinal content into the duct produced chills and fever with mild jaundice. We had fairly good evidence that regurgitation and not obstruction was the cause of the fever and mild jaundice in these two or three cases, since at operation we found the anastomosis open, and the patient's symptoms cleared promptly after this operation in which we merely interrupted the proximal loop. However, we wish to emphasize that in the vast majority of patients with recurrence of symptoms after repair, obstruction due to recurrence of the stricture is the cause of the manifestations.

USE OF PROSTHESES

When we have performed an end-to-end anastomosis, we always insert a T-tube distal to the line of anastomosis with one arm extending upward past the anastomotic line. In such cases, we believe it is desirable to leave the prosthesis in place for eight or nine months, hoping to prevent reformation of the stricture at that point.

If there is a sizeable stump of the common duct protruding beyond the hilus, and it is large with a thin wall free from infection, we do not use a prosthesis (See Fig. 2). However, drains are placed down to the line of anastomosis to allow drainage of bile which might escape be-

tween sutures. On the contrary, if the duct is small, embedded in the liver, and its wall thickened because of infection, we insert a T-tube with one arm extending past the line of anastomosis and leave this tube in position for eight or nine months (See Fig. 3). Usually, we can make more certain the arm of the tube will remain above the suture line if we slit the end and thread one-half up one duct, and the other half up the other duct within the liver (See Fig. 3). The T-tube must not be brought out through the suture line, but as far from it as possible, usually distal. The opening in the duct or jejunum through which the perpendicular arm

is brought to the exterior must be closed tightly to prevent leakage. It should be tested for leakage by injection of sterile saline into it at the end of the operation. A tight closure is necessary to prevent leakage of bile and development of bile peritonitis or a local collection of bile with consequent damage from an infection or chemical inflammation.

DEVELOPMENT OF PORTAL HYPERTENSION

In 29 of the first 122 patients having stricture of the common duct, portal hypertension developed because of liver damage. On a few occasions, attempt to operate on the patient was met with so much bleeding while going through the abdominal wall that the operation had to be abandoned. In these patients, we have performed splenorenal shunts on five occasions. If the shunt is successful, another operation three or more months later will be associated with minimal bleeding. It is extremely gratifying to note the beneficial effect of the shunt on the profuse bleeding from the operative wound.

RESULTS

Our operative mortality rate is between 6 and 7 per cent. Results have been good to excellent in about 70 per cent of cases. In 10 to 15 per cent, results have been poor, usually requiring re-operation.

In 29 patients having anastomosis of the duct to the arm of jejunum without a T-tube prosthesis, results were good in every one; none required additional operative repair. This does not mean that repair without prosthesis is preferable to the use of prosthesis, because these were more favorable cases, and a good result would have been expected with almost any type of repair done skilfully.

Actually, the results in our patients having an end-to-end anastomosis were not as good as in the patients having repair utilizing a Roux-Y arm of jejunum. However, the end-to-end series is small and may not be a true indication of the desirability of utilizing this type of anastomosis. Accordingly, we still believe this procedure should be carried out if at all possible. Actually, our results are very little better now than they were a few years ago when we utilized vitallium tubes, which were abandoned because they became occluded with precipitated ingredients of the bile. However, in our hands this com-

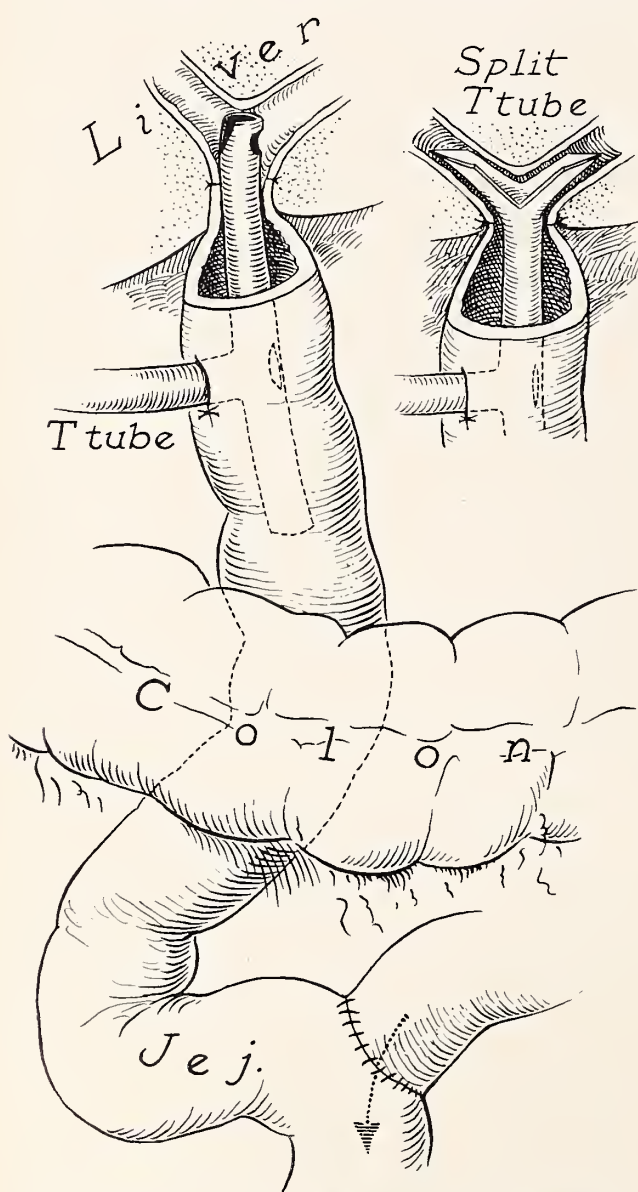


Fig. 3. This reveals the type of anastomosis and prosthesis we use when the hilar duct is small, inflamed, and short or buried in the liver. At times the end of the tube should be split to allow the tube to be inserted past the suture line; to maintain support, the prosthesis obviously must extend past the suture line. In such circumstances, we leave the tube in place from 9 to 12 months. (From Cole, W. H.: *Operative Technique*, 1955. Courtesy of Appleton-Century-Crofts, Inc., New York.)

plication was not very disconcerting because we anchored the vitallium tubes with two or three shallow sutures hoping they would drop out in four or five months, and go down into the intestinal tract. We did not use vitallium tubes in our end-to-end anastomosis because the flange on the tube would prevent its passage from the duct into the duodenum.

Actually, the rubber tube will also become occluded with precipitated ingredients of the bile, if left in position for several months. However, if the tube is not unduly large, this occlusion will not make it necessary to remove the tube since bile can pass downward around it.

For this reason, we never apply a T-tube which is so large that it fills the entire duct and perhaps distends the wall. We would prefer to have one small enough to allow passage of bile around it, although tubes smaller than size 16 should be avoided because the lumen of these T-tubes is so small occlusion by precipitate would be produced more readily.

BIBLIOGRAPHY

1. Cole, W. H., Ireneus, C. Jr. and Reynolds, John T.: Strictures of the Common Bile Duct Studies in 122 Cases, *Annals of Surgery* 142:537-551, 1955. Cole, Warren: Strictures of the Common Duct, *Surgery* 43:320-324, 1958.
2. Walters, Waltman, and Romsdell, John A.: Study of 308 Operations for Stricture of Bile Ducts, *JAMA* 171:872, 1959.
3. Cattell, Richard and Braasch, John W.: Two Stage Repair of Benign Strictures of the Bile Duct, *Surg., Gynec. and Obst.* 109:691, 1959.

FOREIGN DRUGS FOR SOLDIERS AND VETERANS

The Military Medical Supply Agency and the Veterans' Administration have sent millions of the taxpayers' dollars overseas to purchase cheap, pirated versions of powerful drugs discovered by U. S. companies and presumably protected by U. S. patents. This practice was deservedly denounced by American labor when the Oil, Chemical, Atomic Workers International Union passed a resolution strongly condemning it. When the government goes shopping, the taxpayer has a right to expect that it will spend his money wisely, for a good purpose and for the general welfare of the country.

U. S. Senator Hugh Scott in 78th Congress

Know All Things — Serve All People

Pearl Parvin Coulter

From the vantage point of many years' experience in nursing education, a distinguished authority take a long, hard look into the future and comes up with some provocative thinking. Except for a few amusing historical references to the old "handmaiden" notion, the author wastes no more time on the concept of team relationship between nurse and doctor than would an advocate of the idea that a pass receiver rates on the same team as the pass thrower. Professor Coulter poses the challenge: "Where and how do we go beyond Zebra?"

MY FIRST reaction, when I was confronted with the theme for this convention, was that to "know all things and serve all people" is an impossible task for any group to set for itself. Such an objective has never been realized in nursing, and we seem to be falling behind in our progress toward it. We hear a great deal these days about the "explosion of knowledge" and estimating conservatively, it is evident that scientific knowledge doubles its volume every 20 years. This means that the student nurse of today has at least twice as much scientific information available to her as was at the disposal of a student in 1941. The scientific area is just one example of the total accumulation of knowledge which could be learned.

And yet, even today, though some of the scientific facts have crept into the nursing curriculum the public does not seem to regard the nurse as a woman of science, though the public may be prone to too much generalization. We know that the image trait need not exist in reality; if it is thought to exist, it influences the behavior of the practitioner as well as the attitude of the public toward the group.

Attitudes about nurses usually stem from experiences in which individuals have been involved with nursing services for themselves, their families or their friends. The public image of the nurse, distorted as it may be, is based to some extent on facts. The composite public image

is derived from a collective experience. People make use of nursing services during stressful experiences, and they remember nurses as persons who helped to alleviate the stress, or who seemed to increase it. One unhappy experience can constitute an individual's total concept of nursing, but a satisfying experience can be just as provocative as an unsatisfactory one.

Some of you have already contributed to this image. If you have not, to date, you most certainly will help to create the public image of the nurse of the future. In general, the public seems to think well of the nurse and to regard her as a person to whom they want to turn when they need help, particularly with problems of health and illness. It is also my observation that they think of her as a knowledgeable person, but are sometimes confused about the nature of her knowledge. I have myself been embarrassed and often astounded when asked questions by friends which would indicate that they think me capable of dealing with the most complex problems concerned with medical diagnosis and treatment. Even though they think I know, they do not always seem to be sure about what actions are appropriate for me as a nurse. The public accepts the nurse as a person comparatively free of self-aggrandizement. This attitude seems justified, since the record shows that nurses as a group have never sought to limit the number of nurse practitioners in order to place an advantageous premium on their own services. They have actively tried to recruit enough nurses to meet the needs of society.

Presented before the Ninth Annual Convention, Arizona Association of Student Nurses Keynote Program, November 3, 1961, Tucson, Arizona.

Professor of Nursing and Director, School of Nursing, University of Arizona, Tucson, Arizona.

QUANTITY and QUALITY

Nurses are currently faced with two problems, one of quantity and one of quality. The public is well aware of this, though they do not seem to realize that there are more better prepared nurses in this country today than there have been at any other time in history. Despite this fact, the State of Arizona suffers at present from a deficit of over 2,000 registered nurses. The ratio of nurses to population in Arizona as well as in states surrounding it, is declining. For example, in the Western region in 1950 we had a ratio of 318 nurses per 100,000 population, but during the subsequent 10 years, this proportion has become more unfavorable, and we now have less than 275 nurses per 100,000 population.

Some of the reasons for this dilemma are obvious. The population in the Western states has increased, the number of hospital beds has increased, and more people are using hospitals more frequently. Every time 100 new hospital beds are made available, 33 more registered nurses are needed to staff the hospital and give service in the community. These problems of nurse shortage are not unique to the West, but they prevail throughout the United States. In addition to our needs in this country, there are areas in the world whose large and congested populations have serious health problems where there are almost no nurses of any kind. In a world where there is so much to learn, and where there are so many people to serve, what is the hope of learning all things and serving all people?

The hope, as far as I can discover, is inherent in the student nurses of the present, who constitute the seed bed for the future of nursing. It strengthens my belief that perhaps they will succeed when I look back at the whole history of nursing, which is one long, continued story of dilemmas and problems of almost overwhelming proportion, some of which have already been successfully resolved. Students who are veterans of two or three years in a school of nursing have heard, almost to the point of boredom, that nursing has changed and that therefore nursing education must change. I would assume that this might lead, eventually, to a change in the public image of the nurse.

Nursing has not only changed in the past, but it must continue to change. Perhaps it would be no greater miracle for the coming generation

of nurses to "learn all things and serve all people" than the changes which have already occurred in nursing during the past century. As proof that the public image of the nurse, and especially of the student nurse, has also changed, I invite you to take a look with me back in history.

THEN

The first "training schools" for nurses in this country provided a mixture of experiences rich in work and poor in academic content. They were one year or less in length. They were frankly established to provide the hospital with a cheap source of labor. There was not too much concern about the type of education which the nurse was receiving. The high correlation between the nature of the educational program for nurses and the quality of their subsequent practice was not yet clearly understood. The fact that there was an attempt of any sort to prepare nurses for their work was regarded as a step forward. The pattern in this country was largely borrowed from England, where nurses were taught to be first of all self-effacing, as is made clear in a 1857 issue of the *London Times*, where the student nurse's lot was described succinctly. She was, it said

. . . lectured to by committees, preached at by chaplains, scowled at by treasurers and stewards, bullied by dressers, grumbled at and abused by patients, insulted if old and ill-favored . . . tempted and seduced if young and well-looking.

Clara Weeks is credited with writing the first *Textbook of Nursing* in the United States. It was published in 1885. In this volume she reported a physician giving the following advice to a group of "probationers," which was the term applied at that time to beginning students in a school of nursing:

Keep your eyes open and your mouth shut. The hours are long and so are the corridors . . . And remember that the medical student is a highly-educated, hard-working and courteous gentleman who, as a rule, regards a probationer as a very unimportant and uninteresting person.

Lyle Saunders, a sociologist whose recent article appeared in the *American Journal of Nursing*, describes the low status of nursing through the image of the nurse as visualized by physicians, hospital administrators, patients and nurses themselves as:

. . . someone to be seen and not heard; as a pliant and submissive handmaiden who passively

Original Articles

carried out orders; as a selfless mother substitute, endlessly able to dispense affection and never needing to receive any; as a combination housekeeper-drudge who, whatever the situation, could be counted on to be tireless, efficient, dependable, faithful — and cheap.(1)

The nurse was supposed to have some built-in superhuman power which enabled her to lift a 250 pound patient with a simple twist of the wrist, to be immune to all communicable diseases and to require only carbohydrates for nourishment. Over two hours of sleep in every 24 was considered excessively self-indulgent. Ability to stay awake for long periods of time had a high status value among nurses. It did not matter whether or not she understood what she was doing; the important thing was for the nurse to do it without question. The nurse was usually categorized by the public as occupying the extreme limits of the moral spectrum.

NOW

Against this background, the changes which have occurred in nursing are spectacular. As in other occupations, the leaders in nursing have attempted to take positive action designed to develop public appreciation of the true nature of nursing. We no longer have "training schools," but in their stead we have schools of nursing where there is an attempt made to teach prospective nurses the knowledges, skills, attitudes, ethical values and symbols of identification which are unique to their calling, and to interpret to them in its best sense the service which they are preparing to render. When the distinguishing characteristics of nursing become highly specialized and professionalized, new recruits move into them with an added sense of responsibility and dedication.

Now that the older type "training school" has yielded to educational programs in which students are not used for staffing the hospital, but are involved with a curriculum heavily weighted with natural and behavioral sciences through which they secure the foundations of understanding the principles upon which practice is based, we have substantial hope of producing a professional practitioner. As a result of this, a sociologist now describes change in nursing and suggests that there are still some components in nursing which have lasting value:

There is one constant factor as permanent and enduring as anything in human experience.

Whenever the nursing function is performed, there are always present two indispensable componentss The patient and the nurse — one needing, one giving. The continuity, the stability, the enduring quality of nursing is to be found here in the never-failing willingness of some people to give that others may have — to provide for those who need them, relief from pain, comfort, assurance, support and — perhaps more important than any of these — the sense that there is someone who knows, someone who understands, someone who cares.(2)

It strikes me that if we are to be wise enough to preserve and perpetuate the valuable heritage of nursing which has come to us and at the same time to be flexible enough to keep up to date with scientific developments, we are going to have to become continuing learners. There is no hope that any nurse will graduate with all of the information, skill and wisdom which she is going to need to practice nursing in the future. There is every reason to believe that nursing will continue to change, but no one at this moment can predict the extent of the change or the direction which it will take. It is of prime importance for us to realize that change is inevitable. This means that the nurse, from the day she enters the school of nursing, through the last day that she practices her profession, must continue to learn. This concept was expressed by Dr. Harold Enarson, former director of the Western Interstate Commission on Higher Education in an address which he gave to a group of registered nurses here in Tucson about a year ago. He recognized that up-dating practice is a problem with which all persons engaged in health professions are faced:

Information, by its very nature, has a short life. It fades . . . as information becomes obsolete, we as practitioners become obsolete. Our difficulty is that we have not been equipped, or equipped ourselves, with the capability to adjust to change. We are, to put it crudely, living machines with a high rate of obsolescence.(3)

The cost, time and energy expended in the practice of nursing are too great to justify functioning in an obsolete fashion. Our patients are entitled to the most up-to-date service available.

HANDMAIDEN

One of the distinguishing marks of a profession is the uniqueness of the service rendered, and one of the changes which we must accept

is that the nurse is now expected to exercise judgment. For many years nursing was thought to be an ancillary service of medicine. The general public, the doctor and the nurse herself thought of the nurse as the doctor's helper. The doctor went to school, the doctor studied basic sciences, the doctor exercised judgment and made decisions in relation to the medical care of patients. The nurse was regarded as an extension of the doctor. She served as the handmaiden of the doctor. If the nurse needed to learn in order to perform her tasks effectively, the doctor taught her a very dilute version of his medical curriculum which, after all, was the best he could do, because he was a practitioner of medicine and not of nursing.

It was recognized from the beginning that the nurse occupied a strategic position in patient care partly because of her proximity to the patient. One of the unique features of nursing is its continuity. It extends around the clock, all during the week and throughout the year. Patients do not get well in order to relieve the nurse of her duties over the weekend, and they do not go home at night. All through the busy hospital day, and all through the lonely and often pain-wracked hours of the night, a nurse is there dispensing comfort, observing and reporting.

A quiet revolution has been going on in nursing. It is startling to some of us who have been involved with it for many years to realize that it has come so far. About 10 years ago, Milton Lesnick spoke at a convention of the American Nurses' Association. He is an attorney who had carefully reviewed legal cases in which nurses were defendants in courts of law. He discovered that "professional nursing functions supported by case decisions of judicial review fall into seven categories, all but one of which may be described as independent functions which require no prior medical order for their validity. Only one of the seven function categories, that of . . . execution of nursing or medical procedures and techniques which require the direction or supervision of a licensed physician . . . could be interpreted as being dependent.(4)

This means that the nurse is held responsible for her own actions in legal suits and that she can no longer hide behind the broad shoulders of the doctor. In order for the nurse to take this responsibility, the body of knowledge which is

nursing has been at least partially identified, and the student of nursing is taught this professional body of knowledge in nursing by expert practitioners of nursing. This brings us to the present period when nurses are seeking a colleague relationship with the doctor. They are ready to take their place as a status member of the medical team. Miss Dorothy Smith, dean of the School of Nursing at the University of Florida, recently expressed some thoughts about the practice of nursing during her visit to Arizona.

No matter how much we learn, how hard we try, there still remains sickness, disease, pain, suffering and, of course, eventual death. The human order, the order of history, is temporal . . . Physicians and nurses are tremendously concerned with growing and dying.(5)

She went on to imply that an objective to eradicate all death is not realistic. She also makes clear the danger with which every profession, those recently emerging as well as the ones which are established, is threatened from its self-image of all encompassing imperialism. Rather than perceiving the nurse as the doctor's assistant, Dean Smith suggests that:

The nurse exists for the patient, works for the patient. She is the handmaiden — an extension — of the patient, not the handmaiden or the extension of the physician or the hospital.(6)

Even in her one dependent function, it is important for the nurse to recognize that she is implementing the doctor's order for the patient and not carrying out the order for the doctor. This concept of serving the doctor which has been pretty much ingrained in the minds of nurses, is very likely of our own making and may be used as a measure of our professional growth. Perhaps the doctor has not thought of the nurse as carrying out orders for him as much as for the patient, but the nurse, before she had a grasp of the basis for the prescribed treatment and became capable of exercising judgment, had an intrinsic need to be dependent. It is possible that the legal definition of nursing is actually ahead of practice, but no nurse can afford to let this remain true.

CHANGE

We now need a nurse who has been educated for change. We need a nurse who is educated in the scientific method of thinking and who is insightful as well as intuitive in her approach to patients. For nurses who have not been edu-

Original Articles

ated to develop these characteristics, there are learning opportunities on every hand, and the continuing learner will reach out and grasp them. Some of the practitioners of nursing now in leadership roles were not educated for change. They will soon pass from the active scene, and the future of nursing will be in newer hands. If nursing education is focused on change, we may be able to survive and may even do a little better than the present generation of nurses has done. By the time today's seniors will have been graduated next June or next August, there will be only 38 years left in this century. These are the years when you will be in control. I have a feeling that you may move nursing a long way toward your goal of "learn all things — serve all people."

Perhaps a quotation from Alfred Noyes, which appeared in *The Gods Are Angry* may describe your relationship to nursing in the very near future:

There are in all men's lives moments of heightened tensions, moments when something great is afoot and the nerves arch expectantly to meet it; moments upon which they do not always look back with pleasure, for such excitement is not in itself pleasurable, but at which they feel a secret satisfaction, as if they were then living more fully than before.(7)

BEYOND ZEBRA

I suppose none of us can see clearly at this time the changes which will shape nursing even during the next 10 years, and certainly not to the end of the century. It does seem obvious that if we have been educated for change, and if we understand the scientific principles upon which the practice of nursing is based, we will have the imagination, the creative energy and the maturity not only to accept change, but to exploit it when and in whatever form it comes. I wish I could provide students with a neat little formula which could be relied upon to work in all situations at any time. Of course, I can't do this, and even if I could, professional practitioners of nursing would be too sophisticated to make use of a rule of thumb. Lacking the easy cliché, I would like to recommend a book which I believe will help over most of the rough problems with which the student will be confronted. It is not an erudite tome, a statistical treatise, or a learned scientific work. It was not written by a leader in nursing; in fact, it was not written by

a nurse at all. It is a child's book, *On Beyond Zebra*, by Dr. Seuss. It is about a boy who was educated for change, and while "learning all things and serving all people" remained an ideal forever beyond his grasp, he did learn how to cope with new problems in a most imaginative way. This book expresses a bit of philosophy which, if properly applied, can move nursing forward to hitherto undreamed of achievements during the remaining years of the current century. It describes fascinating new letters which make it possible to spell new words which in turn stimulate ideas denied to those who are limited to the traditional 26 letters of the alphabet.

Perhaps our biggest problems in nursing stem from our belief that everything is fixed; that the alphabet ends with Z. This is a belief which was formerly shared by "Conrad Cornelius o'Donald o'Dell, a very young boy who is learning to spell."

"... through Z is for Zebra. I know them all well."

Said Conrad Cornelius o'Donald o'Dell.

"So now I know everything anyone knows."

"From beginning to end. From the start to the close."

"Because Z is as far as the alphabet goes."(8)

Just as Conrad Cornelius o'Donald o'Dell discovered that new letters and words and ideas lay beyond those now known, it will be found that there are many truths in nursing yet to be discovered and better and more effective ways of giving service which will add to the comfort of patients. Perhaps all of the solutions of nursing problems are not to be found by producing *more* nurses. There is some indication that what we need most of all is *better* nurses. The possibilities beyond Zebra are breathtaking. We need nurses capable of thinking boldly and with daring far beyond the confines of traditional practice. We need nurses who can engage in study and experimentation, nurses who can free themselves from the routines of yesterday and now, and who can venture beyond the prescribed ways in which they have been taught to think and act. We need nurses who are capable of mental exploration out beyond the far reaches of the known and the tried.

There is a great deal to kindle the imagination beyond Zebra. To go there and discover better ways to patient care is our task. The

equipment we will need is a mental frame of reference which will enable us to say with the wisdom of Conrad Cornelius o'Donald o'Dell:

*"This is really great stuff!
 "And I guess the old alphabet isn't enough!"
 Now the letters he uses are something to see.
 Most people stop with the Z
 But not he.(9)*

REFERENCES

1. Saunders, Lyle. "Permanence and Change," The American Journal of Nursing. July, 1958.
2. Ibid.
3. Enarson, Harold. "Continuing Education for the Professions." Report of Continuing Education Conference, The University of Arizona School of Nursing, October 21, 1960.
4. Lesnick, Milton. "The Board of Nurse Examiners and the Nurse Practice Act," The American Journal of Nursing. December, 1954.
5. Smith, Dorothy. "Patients, Nurses and Physicians - One Viewpoint." Report of Continuing Education Conference, The University of Arizona School of Nursing, October 19, 1961.
6. Ibid.
7. Noyes, Alfred. The Gods Are Angry.
8. Seuss, Dr. On Beyond Zebra.
9. Ibid.

NUCLEAR ACCELERATOR VAULT

An underground accelerator vault and control room are being constructed at the north end of The University of Arizona's College of Engineering building for use of the Department of Nuclear Engineering.

Dr. Lynn E. Weaver, head of the nuclear engineering department, said the 40 by 16 foot facility, scheduled for completion in January, will house a \$68,000 dynamitron machine designed to accelerate electrons to energies of one million electron volts.

Weaver said the machine "will be used in studies of radiation on materials and the alteration of the properties of materials produced by electron bombardment."

Anuria Associated with Severe Gallbladder Disease Attack

L. Manoil, M.D.

An episode of postoperative anuria is presented in a middle-aged woman who developed an empyema of the gallbladder with prolonged preoperative and postoperative shock. The oliguria persisted for four days and was followed by profuse diuresis. She had an uneventful recovery without any evidence of permanent renal damage. There is a detailed discussion of the types and causes of acute postoperative renal suppression.

ACUTE renal suppression associated with surgical conditions is not a common occurrence. Although more than 70 causes of acute renal failure have been described, most cases can be grouped in one of several settings. The majority followed major surgery, obstetric accidents, traumatic injury, severe body burns, or nephrotoxic insults. There is still an incomplete understanding of their role in the production of this acute renal suppression. The case here to be reported is that of acute renal suppression associated with a severe attack of gallbladder disease, preoperatively.

CASE REPORT

A 59-year-old white female patient was admitted with pains of two days' duration with increasing severity in the right upper abdomen and back. The patient had been very well for the past four years since surgery for amputation of the cervix. X-ray studies at that time also had disclosed evidence of gallbladder disease. She had no genito-urinary or gastro-intestinal symptoms. The patient had had a sub-total hysterectomy in 1948, otherwise no other illness or operations.

Physical examination disclosed a well developed well nourished woman acutely ill with pain in the RUQ. Temperature was 98.6, heart 72, blood pressure 130/90. Abdominal rigidity and marked tenderness in right upper quadrant, no masses felt. Cholangiogram on June 21, 1961 disclosed a non-functioning gallbladder with round density in right upper quadrant, probably

stone in gallbladder. X-ray of the chest on June 23 was negative except for elevated right diaphragm. Serum amylase on admission, 146 units, WBC 9,500. Following day of admission, amylase was 84 units, WBC 15,000.

On the night of June 23, second post admission day, the patient went into deep shock with a drop in blood pressure to 85/60, and cold, clammy skin. Despite intensive measures to combat shock, the patient still appeared extremely ill the day following. Flat plate of the abdomen suggested tissue mass under the liver which might be enlarged gallbladder, or subhepatic mass. WBC went up to 17,000. The onset of this acute shocking condition strongly suggested a sudden impaction of a stone in the cystic duct, or rupture of a gangrenous gallbladder.

Surgical exploration became imperative. Findings on exploration on June 24 disclosed an extremely large, edematous gallbladder filling the right upper quadrant. This empyema of the gallbladder was opened and drained and four large stones, including one impacted in the cystic duct, were removed. A rubber tube was inserted and sutured to the gallbladder wall. The patient was in extremely poor condition with low blood pressure, rapid pulse, cold and clammy skin. She responded poorly. On the day of surgery, with a catheter in bladder, she passed only a few drops of urine. On June 25, or the first operative day, the urine output in 24 hours was 50 cc. On June 26 it was 160 cc, on June 27, 170 cc. On June 28, the fourth postoperative day, she passed 880 cc, on June 29, 2,500 cc and on June 30, 5,100 cc.

Presented at Staff Meeting, Doctor's Hospital, Phoenix, Arizona, September 27, 1961.

In other words, the anuria was marked for four days postoperatively. NPN and BUN stayed elevated continuously 120-140 mgs. per cent until urine output increased to adequate amounts, then NPN dropped to 87 mgs. per cent. Electrolyte studies on June 28 were normal. The patient was kept on about 3,000 cc of intravenous fluids daily for one week postoperatively until she was able to increase her oral intake of fluids and soft foods. On July 3, the ninth postoperative day, the tube in the gallbladder spontaneously came out, and the wound gradually closed. The patient was discharged on July 15, the 21st postop day.

The patient was readmitted July 28 with recurrent symptoms of severe and acute pain in right upper quadrant, urine clear. On July 29, serum amylase was 128, WBC, 15,800. Spontaneous drainage of copious bile from the gallbladder drainage wound on July 30 subsided in a few days along with all her symptoms. The patient was discharged Aug. 7, 10 days following her last admission. When she was last seen three weeks later, the patient felt a little weak, but otherwise well and free of symptoms referable to her gastro-intestinal or genito-urinary tracts.

SUMMARY OF INTAKE, OUTPUT AND BLOOD CHEMISTRY STUDIES

1961	Intake		Total	Output			Total	NPN	BUN
	Oral	Parenteral		Urine few drops	Drainage	Emesis			
6/24	0	2,050	2,050 cc		140	0	140 cc	mgs. %	mgs. %
6/25	220	2,800	3,030	50	470	310	830	94	35
6/26	130	3,000	3,130	160	240	60	460	120	35
6/27	120	2,500	2,620	170	280	60	510	144	64
6/28	180	3,300	3,480	880	310	120	1,310	Sodium: 132- m eq/L Potass: 4.3- m eq/L	
6/29	210	2,900	3,110	2,500	370	130	3,000	120	50.2
6/30	275	3,000	3,275	5,100	490	90	5,680	120	35
7/1	1,480	100	1,580	5,300	430	0	5,730		
7/3								87	41
8/28								43	

COMMENT

The failure of the kidneys to maintain water and solute homeostasis can be ascribed to two basic mechanisms. In the case of the first, the kidneys are diseased and can not respond normally to physiological stimuli. In the case of the second, the kidneys are normal, but receive abnormal messages inconsistent with the homeostatic needs of the body. This case falls in the latter category.

Several factors influence the kidneys' ability to excrete water. Secretion of vasopressin, the antidiuretic hormone of the posterior pituitary gland must be suppressed. Renal blood flow and the glomerular filtration must be normal, and adequate amounts of circulating gluco-corticoids must be present. Normal serum electrolyte values, especially normal serum sodium, are important. This failure to suppress antidiuretic hormone because of pain, anesthesia, or decreased circulatory blood volume may inhibit water secretion. A decrease in blood volume secondary

to blood loss in the accumulation of body fluids in the peritoneum may decrease the renal blood flow.

Unexplainable disturbances in water metabolism without consistent alterations in electrolyte metabolism have been observed in many disease states. There is evidence for similar disturbances after trauma or operation that are best attributed to some undefined or poorly delineated alteration in water metabolism itself. Several instances of altered water metabolism are worth mention.

1. Expansion of the interstitial space in the postoperative period with complicated clinical courses has been observed in patients with water retention severe enough to lead to convulsions. Since no abnormal electrolyte losses occur, and since urinary excretion of sodium is low, primary water retention might be an explanation of the phenomenon.

2. In patients free of endocrinologic or renal tubular disease, large volumes of urine with low

Original Articles

specific gravity are not seen in the immediate post-traumatic or postoperative period. Such a physiologic oliguria takes place despite the administration of fluids in amounts calculated to provide a urinary volume of at least 1.5 liters a day.

3. An entity observed clinically and produced experimentally has been described as congestive and atelectatic, and has been attributed to the administration of fluids. Congestive atelectasis due to the intravenous administration of fluids is not seen in healthy persons without prior injury.

The oliguria not associated with dehydration should not be expected to last more than two or three days. Its persistence beyond this period should cause concern. At this point, the problem of acute tubular necrosis must be considered. Though not a common finding, acute tubular necrosis may develop in the patient who has had major tissue damage, a period hypotension, and/or hemolytic transfusion reaction. These factors need not be of such magnitude as to be readily apparent.

Rises in blood urea or non-protein nitrogen levels are often found after trauma, including

surgical operations. One factor in the increase in urea and NPN is decreased urine formation. Another cause of postoperative nitrogen retention is decreased glomerular filtration owing to diminished renal blood flow. The latter may be due to abnormally low cardiac outputs, as in shock, or to abnormally great renal vasoconstriction, as in shock, anemia or salt depletion.

SUMMARY

1. Case of acute suppression of urine secondary to shock associated with attack of acute cholecystitis and cholelithiasis is reported.

2. Oliguria or urinary suppression not associated with dehydration should not be expected to last more than two to three days. In this patient, the oliguria persisted four days with apparent subsequent good recovery. Urinalysis two months postoperatively was essentially normal, though NPN 43 was noted.

3. Cholecystostomy and removal of stones including impacted stone in cystic duct relieved symptoms as urgent palliative procedure.

4. Renal physio-pathology is briefly reviewed.

REFERENCES

Wright, S.: Secretion of Urine; Applied Physiology, pp 549-562.
Levitin, H., and Hayes, M.: Renal Function; Lippincott's Medical Science, pp 215-233, August 25, 1961.



At your store
or call
AM 4-0221
for
FREE
Home Delivery

**No Salt Free Diet is
Complete Without ...**

Crystal Distal

STEAM DISTILLED WATER

**Scientifically Processed
and Mineral Free**

The purest water available.





OPEN SEASON ON CLOGGED NOSES

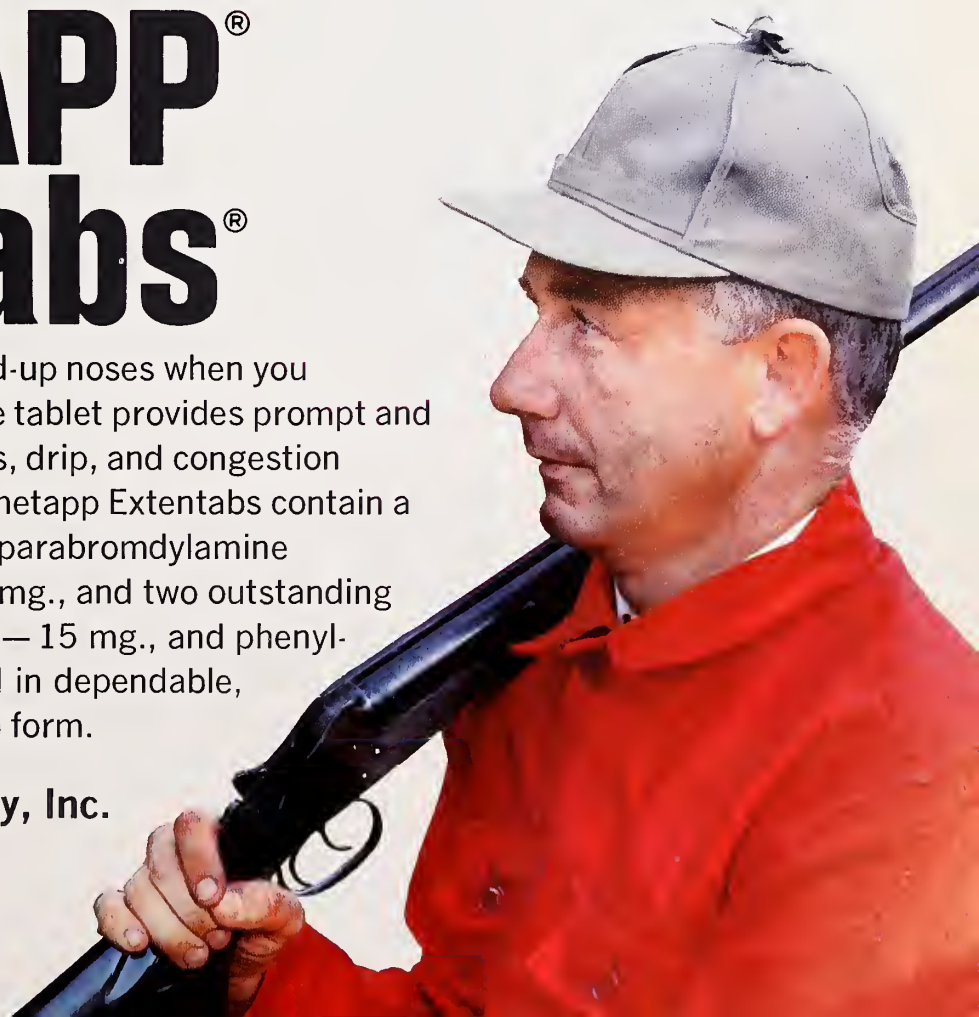
in sinusitis, colds, U.R.I.,
10-12 hours
clear breathing on 1 tablet

DIMETAPP[®] **Extentabs[®]**

It's always Open Season on stopped-up noses when you prescribe Dimetapp Extentabs. One tablet provides prompt and prolonged relief from the stuffiness, drip, and congestion of upper respiratory infections. Dimetapp Extentabs contain a proven antihistamine, Dimetane[®] [parabromdylamine (brompheniramine) maleate] — 12 mg., and two outstanding decongestants, phenylephrine HCl — 15 mg., and phenylpropanolamine HCl — 15 mg. . . all in dependable, long-acting (10-12 hours) Extentab form.



A. H. Robins Company, Inc.
Richmond, Va.





**ULCER
UNDER
REPAIR**

**ROBANUL
AT
WORK**

New **Robanul™** signals a major improvement in duodenal ulcer therapy

From Robins research comes Robanul (generically, Glycopyrrolate), first of the "rigid-ring" anticholinergics, representing what may well be the most important advance in anticholinergic chemistry in a decade.

Clinically, both Robanul and Robanul-PH (with phenobarbital) have demonstrated a remarkable ability to provide within 90 minutes—and maintain for 6 to 10 hours—those nearly ideal pharmacologic healing conditions that mean prompt relief of ulcer pain and a successful recovery of your ulcer patient.

There are always important questions about any new therapeutic agent. Below are answers to some of the common ones asked about Robanul:

ROBANUL™

Glycopyrrolate (Robins),
1.0 mg. per tablet
(U.S. Pat. No. 2,956,062)

ROBANUL™-PH

Robanul with phenobarbital,
16.2 mg. per tablet

First of all, what does "rigid-ring" mean?

Briefly, this: it describes the use of a fixed pyrrolidine pentagon, or rigid ring, which guarantees a constant 2-carbon distance between reactive parts of the molecule. In line with the "receptor site" concept of the mechanism of action of anticholinergics, this almost inflexible molecule is theoretically more likely to "fit" only certain receptor sites.

Theories are all right, but is Robanul really more selective?

Yes! Evidence of its selectivity can be seen by the surprising lack of typical secondary anticholinergic effects (dry mouth, blurred vision, etc.) that occur at the effective dosage level of 1 to 4 mg. a day. Out of 499 duodenal and gastric ulcer patients treated at this level in investigative studies, only 4.4% had complaints of moderate to severe effects.

How is it for reducing gastric acid?

One investigator^{1a} found that a 2 mg. dose of Robanul lowered acid secretion 73% in one hour (compared to a basal-hour period) and 84% in two. A 4 mg. dose dropped secretion over 94% in one hour and 97% in two!

What about acidity, or concentration of acid?

In one study, glycopyrrolate produced significant suppression of pH to 4.5 or higher in 5 of 5 duodenal ulcer patients given a 4 mg. dose, 7 of 8 patients given 2 mg., and 4 of 5 patients given 1 mg.^{1b}

Will Robanul depress gastric hypermotility?

In another study² with six subjects Robanul decreased gastric motility in every patient. Within 40 minutes after the administration of 2 mg. of Robanul, the frequency of gastric antral contractions decreased from 1 every 24

seconds to only 1 every 2½ minutes. Young and Sun^{1c} found a similar effect. Moreover, their results in 7 patients indicated that Robanul, in a dose of 2 mg., did not produce delay in gastric emptying or intestinal transit.

What's the best dosage schedule for Robanul?

It should be adjusted for each patient, and this is where Robanul offers another big advantage. Its "titratability" is unmatched among anticholinergic agents. Robanul's potency makes possible a recommended starting dose of only one milligram t.i.d. Yet its selectivity usually permits much leeway for dosage adjustment upward as necessary, to achieve the most effective dose level for each patient while maintaining a low incidence of undesirable effects on other organ systems.

Is there anything else Robanul does for peptic ulcer?

Much more! For instance, 2 mg. cuts pepsin production about 50% in two hours; 4 mg., about 65%.^{1a}... There is evidence that Robanul combats hormonal aspects of gastric secretions as well as vagal in many patients... Its activity lasts long enough to reduce acid secretion all night long.³... Many ulcer patients have remarked about its fast relief of pain....

One last question: Why not prescribe Robanul for your next duodenal ulcer patient and see for yourself just exactly how effective it is?

References: 1. From the New York Academy of Sciences, Conference on Peptic Ulcer, Oct., 1961. (a) H. C. Moeller. (b) D. C. H. Sun. (c) R. Young and D. C. H. Sun. 2. W. C. Breidenbach: Investigative clinical report, March, 1961. 3. I. A. Feder: Investigative clinical report, May, 1961.

Additional information upon request.

A. H. Robins Company, Inc., Richmond 20, Va.



"All the world's a stage..
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7



through all seven ages of man

VISTARIL®

effective anxiety control
with a wide margin of safety

in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King¹ found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,² who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION

HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION

HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being®



PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

New York 17, New York



IN BRIEF

VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL Parenteral Solution (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL Capsules (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL Oral Suspension (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®



PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

YOUR PROFESSIONAL GROUP ACCIDENT AND SICKNESS INSURANCE POLICY

Approved and Recommended by
Your Insurance Committee and
Board of Directors



A Program Designed For
The Members Of
**THE ARIZONA MEDICAL
ASSOCIATION, INC.**

By The
**NATIONAL CASUALTY COMPANY
OF DETROIT**



For Complete Information
CONTACT
CHARLES A. DELEEuw
3424 N. Central Ave. — AMherst 6-2403

PIMA COUNTY REPRESENTATIVE
RONALD DEITRICH
136 North Stone Avenue MAIn 3-0583

HOW
CARTRAX[®]
OFFERS
BETTER PROTECTION
AGAINST ANGINA PECTORIS
THAN VASODILATORS
ALONE:



TOGETHER—IN CARTRAX...

they decrease "length, severity, and amount of angina pectoris" in anxious cardiacs.¹

Give your angina patient better protection by balancing supply and demand...with CARTRAX.

note: Should be given with caution in glaucoma.

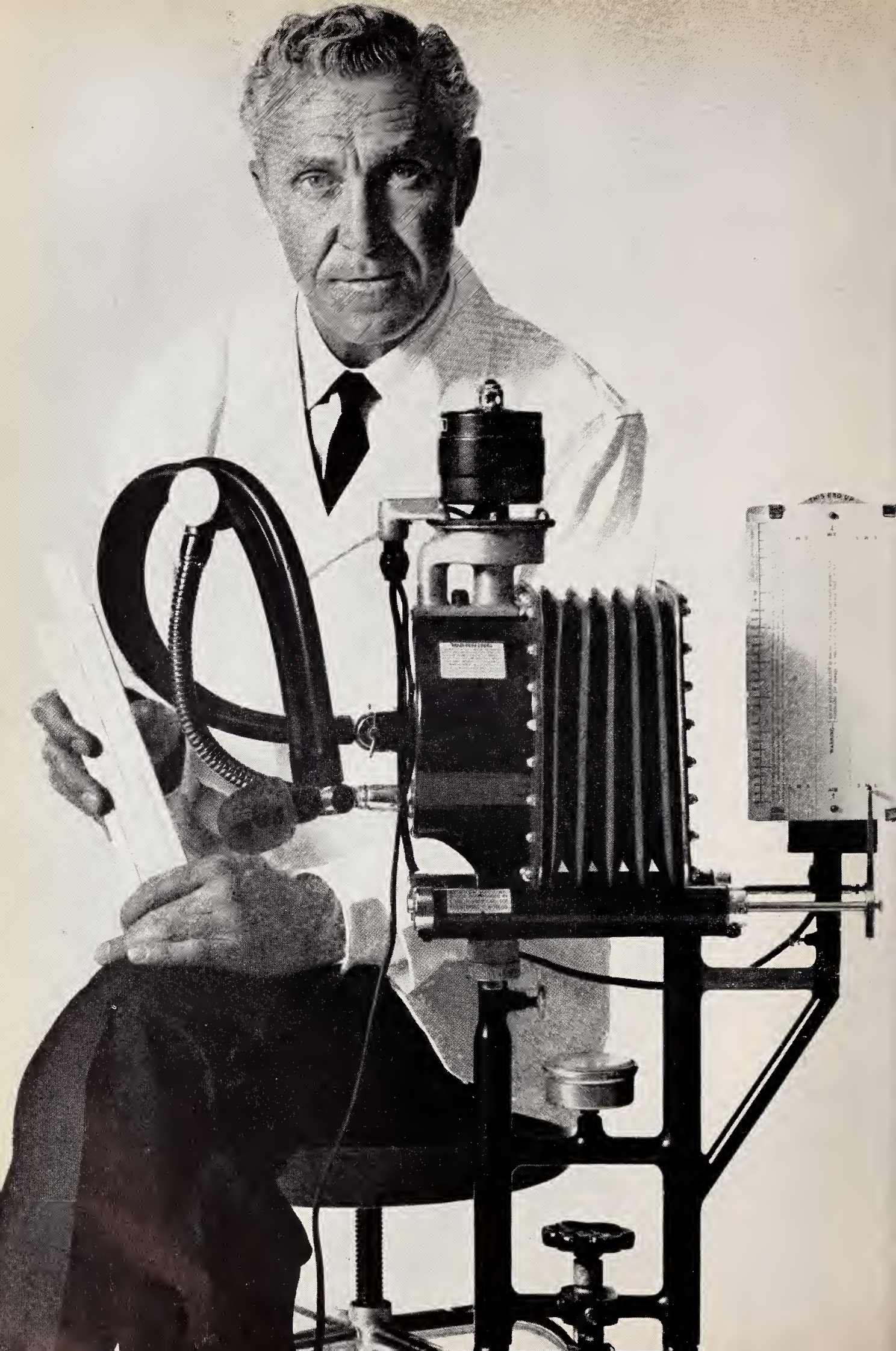
dosage: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. Atarax) 3 to 4 times daily. When indicated, this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. Atarax). For convenience, write "CARTRAX 10" or "CARTRAX 20." Supplied in bottles of 100. Prescription only.

1. Clark, T. E., and Jochem, G. G.: Angiology 11:361 (Aug.) 1960.

*brand of hydroxyzine **pentaerythritol tetranitrate



New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®



Can we measure the patient's comfort?

The physician can measure the basal metabolic rate by means of oxygen consumption. But he has no instrument—no objective test—for measuring comfort.

For this, he must depend upon his own powers of observation and the patient's own description of how he feels.

Because these are, admittedly, subjective criteria, the validity of results hinges entirely on the experience and objectivity of the investigators involved.

Such well-qualified clinicians have reported that a new corticosteroid developed in the research laboratories of Upjohn actually raises the level of relief obtainable with this type of therapy.

This difference cannot be "proved." It must be seen. And the only practical way for you to do this is to evaluate this new drug critically in your own practice. Please do, at your first opportunity. We are confident that you will be glad you did.

The new corticosteroid from Upjohn research

Alphadrol[®]

Each tablet contains Alphadrol (fluprednisolone) 0.75 mg. or 1.5 mg.
Supplied in bottles of 25 and 100.

The anti-inflammatory activity of Alphadrol is comparable to the best effects obtained in current practice. Results obtained with Alphadrol have been such as to warrant classifying it among the most efficient steroids now available.

More than twice as potent as prednisolone, Alphadrol exhibits no new or bizarre side effects. Salt retention, edema or hypertension, potassium loss, anorexia, muscle weakness or muscle wasting, excessive appetite, abdominal cramping, or increased abdominal girth have not been a problem.

Indications and effects

The benefits of Alphadrol (anti-inflammatory, antiallergic, antirheumatic, antileukemic, antihemolytic) are indicated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications

Patients on Alphadrol will usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal in-

tolerance, weight gain or weight loss, edema, hypertension, acne or emotional imbalance.

As in all corticotherapy, however, there are certain precautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Alphadrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

In Dysmenorrhea...



“cramps” don’t cramp her style...
when you prescribe

Trancoprin®

Aspirin.....(5 grains) 300 mg.
Trancopal® (brand of chlormezanone).....50 mg.

Trancoprin is more than a simple analgesic: It deals with cramping pains in three ways. Besides dimming pain perception, Trancoprin, through its tranquilizing action, reduces anxiety and raises the tolerance for discomfort. And, against the spasm caused by pain which, in turn,

produces more pain, Trancoprin exerts its skeletal muscle relaxant action.

Trancoprin is exceptionally safe to use: Fewer than two and a half per cent of patients can be expected to have any side effects, and these are of a minor nature.

Available in bottles of 100 tablets. The usual dosage in dysmenorrhea is 2 tablets 3 or 4 times daily.

Winthrop LABORATORIES,
New York 18, N.Y.

1602M



If you had to make your own children's multivitamins

...chances are you'd try to make them very much like our new Vi-Daylin® Chewable with Entrapped Flavor. Entrapped Flavor means a better tasting chewable children's multivitamin; one with no vitamin aftertaste. Here's why: 1. We coat all the vitamins in a digestible film that does not dissolve until it reaches the gastrointestinal tract. This means that unpleasant strong vitamin tastes are not released in the mouth, but in the g-i tract where they are most quickly absorbed. 2. We make certain that every Vi-Daylin Chewable tablet tastes citrus sweet and good to every patient, everytime; we coat the flavoring oils in each tablet in a water soluble film. This film dissolves immediately in the mouth, releasing the full bouquet of our citrus-candy flavoring agents. Now you know why little patients always taste the flavor, never the vitamins, when you prescribe new Vi-Daylin Chewable. And the formula's all you'd expect, with reasonable amounts of A & D. Taste test them yourself and you'll prescribe **VI-DAYLIN CHEWABLE** regularly and soon.



Profile of a multivitamin



New Vi-Daylin **Chewable** —with entrapped flavor

New Formula

In recognition of recent medical thinking, we've reduced the vitamin D in our formula from 20 mcg. (800 units) to 10 mcg. (400 units). At the same time, we've increased the vitamin C content from 40 mg. to 50 mg. per tablet and per 5-cc. lemon-candy teaspoonful.

All Other Elements Remain at Their Previous Level.

Vitamin A
(3000 units) 0.9 mg.
Thiamine
Mononitrate 1.5 mg.
Riboflavin 1.2 mg.

Cobalamin (B₁₂) . . . 3 mcg.
Nicotinamide 10 mg.
Pyridoxine
Hydrochloride 1 mg.

New Low Price

In quantities of 100 tablets our new Chewable costs less than 4¢ a tablet and the normal dosage is one tablet daily. No financial hardship for your patients when you prescribe or recommend Vi-Daylin.

New Shape, New Color, New Bottle

New Vi-Daylin Chewable tablets are football shaped. This shape got a high degree of acceptance in our taste-tests and

seems to have an intrinsic interest for children. The orange color ties in with the mild, sweet citrus flavor. And the wide-mouthed new bottle looks handsome on the table.

Taste-Test

New Vi-Daylin Chewable Yourself

Won't you taste-test new Vi-Daylin Chewable multivitamins yourself? We're certain you'll be pleasantly surprised at their sweet good taste. They're the candy-flavored multivitamins with *entrapped flavor* . . . little folks taste the candy flavor, never the vitamins.



VI-DAYLIN—Vitamins A, D, B₁, B₂, B₆, B₁₂, C, and Nicotinamide, Abbott

Why? ... Who? ...

Leslie B. Smith, M.D.



1. Why are you President of The Arizona Medical Association? 2. How much of your time does it take? 3. How can you afford to spend so much of your time? These questions were fired at me during a dinner in my honor three months after I became President by a young member of our Women's Auxiliary.

My social spontaneous answers to these formidable questions were: 1. "I guess I must like this sort of thing or I would never have allowed myself to become so involved." 2. "Thus far it has averaged at least three hours per day." (Since then varified by the clock). 3. "By today's standards I cannot afford it because my financial statement proves that I have not, at my age, accumulated enough to cover my future obligations to my family or myself." Her final question, "Then why do you do it?"

About two hours later, before the County Society Members, I added to my answers by stating, "by heritage I must be somewhat of a 'Carrie-Nation-Kansas-crusader' imbued with a philosophy which proposes that you cannot take it with you, but that one's going to the Hereafter is much easier if done so with the belief or knowledge that he has made a substantial contribution to his posterity and society which will improve their plight."

The rich experiences of your President have thus far justified the personal "sacrifices."

"Who" are your elected officers and whom should you elect? These questions are of vital importance to each of our members! The individual members of the medical profession and those organizations through which they speak and act have always been concerned not only with the art and science of medicine, but also with the socio-economic-political environment. The threatening trend of the recent years have made it necessary for us to direct a greater proportion of our meditations and actions toward those political proposals which would impede the advances of medicine and lower the quality of health care.

It is the inherent responsibility of those whom you elect to diligently promote that which will assure the continued march of medicine in all its phases. The urgencies of the times and the significance of the issues makes it hazardous to advance our members to positions of honor simply because they have been "good Joes," or close friends.

It is obligatory that each and every member be cognizant of the character of those whom we elect to office. We must choose those whose beliefs are in keeping with our purpose — they must be properly oriented with factual information — they must be willing to donate sufficiently of their time, and above all — they must have the talent to effectively present our cause anyplace, anytime.

Apropos to "brainwashing" previously discussed in this Journal, we must scrutinize the pigments of the "brainwashing solutions" used by the nominee for our officers so as to avoid repulsive incompatible clashes.

Leslie B. Smith, M.D.
President



SUCCESSFUL FAMILY PLANNING...BASED ON YOUR COUNSEL AND **LANESTA® GEL**

Every young couple about to be married needs advice of all sorts, and they'll get it, too — from everybody — some good, some bad. But some of the most valuable counsel they can get — help in planning their own family — comes best from you. Their family happiness for many years can depend on what you suggest to them, including your recommendation for the use of Lanesta Gel.

Lanesta Gel, with or without a diaphragm, is a most effective means of conception control. Lanesta Gel offers faster spermicidal action because it rapidly diffuses into the seminal clot. In fact, Gamble ("Spermicidal Times of Commercial Contraceptive Materials — 1959"*) *found the mean diffusion spermicidal time of Lanesta Gel to be three to seven times faster than the mean diffusion times of ten leading commercially available contraceptive creams, gels, or jellies.*

Lanesta Gel has complete esthetic acceptance and is well tolerated. *Gamble, C. P.: Am. Pract. & Digest. Treat. 11:852 (Oct.) 1960.

A PRODUCT OF LANTEEN® RESEARCH



Distributed by

Supplied by Esta Medical Laboratories, Inc., Alliance, Ohio

BREON LABORATORIES INC., New York 18, N. Y.



CONSISTENTLY SUCCESSFUL IN RELIEVING DRY, ITCHY SKIN

Sardo®

BATH OIL

STUDY 1 Spoor, H. J.: N. Y.
State J.M. 58:3292, 1958.

satisfactory results in **88%** of cases

comments: "In practically every instance...
the patients experienced relief
from dryness and pruritus."

STUDY 2 Lubowe, I. I.:
Western Med. 1:45, 1960.

satisfactory results in **94%** of cases

comments: Sardo "reduced inflammation,
itching, irritation, and other
discomfort..."

STUDY 3 Weissberg, G.:
Clin. Med. 7:1161, 1960.

satisfactory results in **91%** of cases

comments: "Scaling disappeared, and...
the skin became softer and
smoother..." with Sardo.

INDICATIONS

eczematoid dermatitis

atopic dermatitis

senile pruritus

contact dermatitis

nummular dermatitis

neurodermatitis

soap dermatitis

ichthyosis



SARDO IN THE BATH releases millions of microfine water-miscible globules* which act to (a) lubricate and soften skin, (b) replenish natural emollient oil, (c) prevent excessive evaporation of essential moisture.

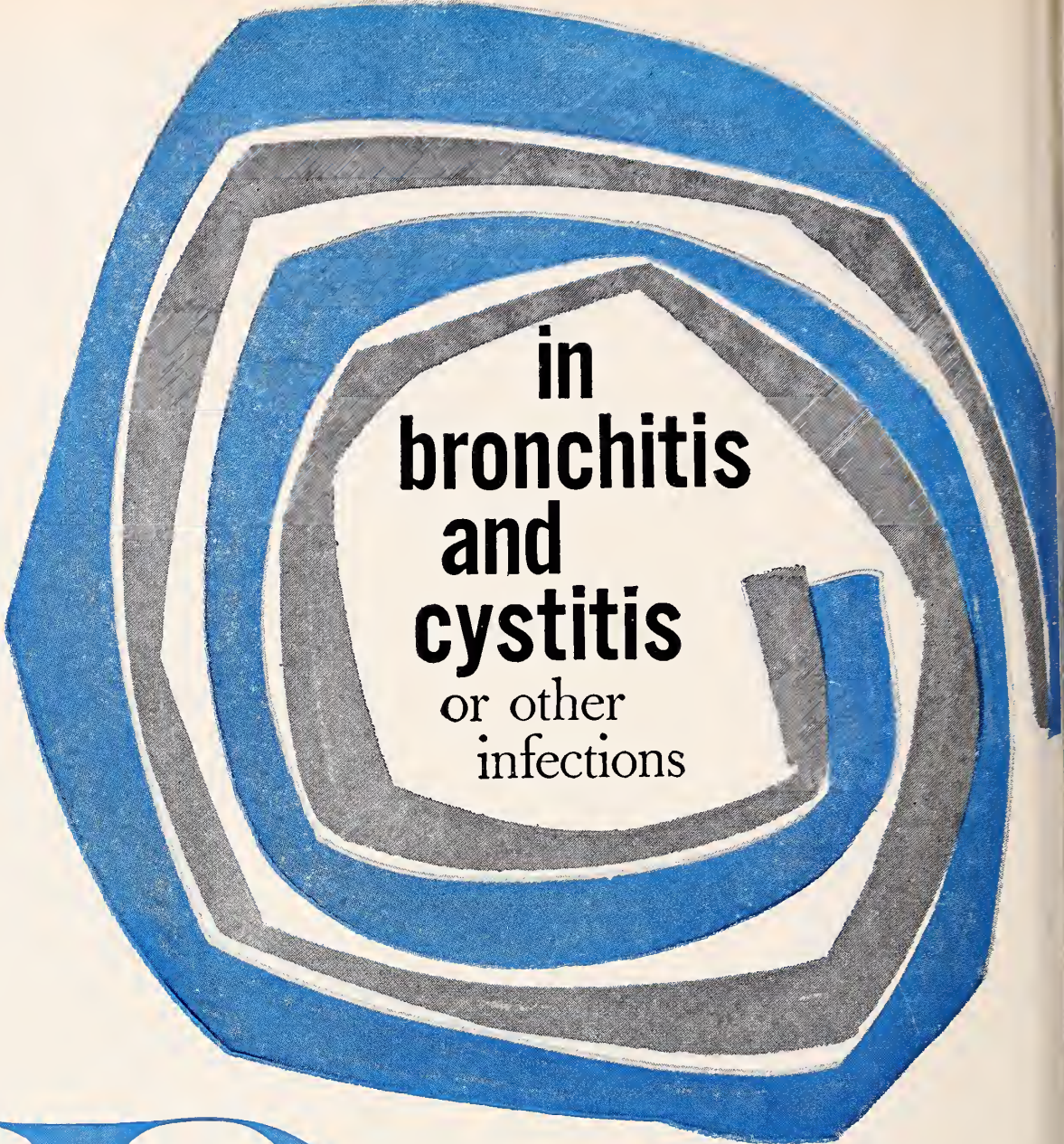
Patients appreciate pleasant, convenient SARDO.

Non-sticky, non-sensitizing, economical. Bottles of 4, 8 and 16 oz.

for samples and literature, please write...

SARDEAU, INC. 75 East 55th Street, New York 22, N. Y.*Patent Pending, T.M. © 1961





in
bronchitis
and
cystitis
or other
infections

DECLO

antibiotic therapy with


CAPSULES, 150 mg., 75 mg. *Dosage:* Average infections—150 mg. four times daily. Severe infections—Initial dose of 300 mg., then 150 mg. every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. *Dosage:* 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into four doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored). *Dosage:* 3 to 6 mg. per pound body weight per day—divided into four doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics, and demands that the patient be kept under constant observation.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York 

n added measure of protection

MYCIN[®]

DEMETHYLCHLORTETRACYCLINE LEDERLE

against relapse— up to 6 days' activity on 4 days' dosage

against secondary infection— sustained high activity levels

against "problem" pathogens— positive broad-spectrum antibiosis

NEW
comprehensive
digestant
with the
most
potent
enzyme
available
for
digestion of



—also unsurpassed potency for digestion of starch, protein and cellulose

- the *only* digestant with Lipancreatin,* proven superior to Pancreatin N.F.
- the *only* digestant with fat-splitting lipase activity 12 times as great as that of Pancreatin N.F.

When the question is digestion because of your patient's inability to handle fat, starch, protein or cellulose, you can provide dependable relief with COTAZYM-B, which contains the essential pancreatic enzymes lipase, trypsin and amylase, plus bile salts and cellulase. A daily dose of 6 COTAZYM-B tablets is sufficient to emulsify and digest 50 Gm. of dietary fat, and to digest all of the protein and starch in a typical diet (100 Gm. protein, 250 Gm. starch) and 480 mg. cellulose.

Dosage: 1 or 2 tablets with water just before each meal.

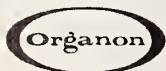
Supply: Bottles of 48 tablets.

Write for samples and comprehensive literature.

NEW Cotazym-B[®]

Lipancreatin Bile Salts Cellulase

ORGANON INC., West Orange, New Jersey



**The Significance of Lipancreatin (Pancreatic Enzymes Concentrated 'Organon')*

A product of original Organon research, lipancreatin provides for the first time in digestant preparations a known, constant amount of fat-digesting lipase in addition to trypsin and amylase. It surpasses in assayable digestive activity all presently available pancreatin preparations.

PREMARITAL EXAMINATIONS IN ARIZONA

At the present time, Arizona law states that as a requirement for marriage within the State each individual be given a premarital health examination and that the examining physician certify that the individual is free of communicable venereal diseases.

In actual practice, the examining physician realizes that this is a completely unrealistic piece of legislation and that it is impossible to comply with its intent. For this reason in many instances, the examination is limited to the performance of the blood serology and in some cases the physician does not even see the examinee.

If the letter of this legislation were to be followed to the limits now imposed by the medical act, a certification of this type would include the following:

- (a) Complete physical and neurological examination.
- (b) Dark field studies of any suspicious lesion of the mucous membranes.

(c) Urethral and/or prostatic smear and culture in the male.

(d) Culture of the vaginal tract in the female.

(e) Blood serology.

(f) Isolation of the individual for the incubation period of gonorrhea and syphilis.

(g) Other laboratory studies where indicated for lymphogranuloma inguinale and lymphopathia venereum.

Not only is this legislation undesirable because it requires a medical certification not based on fact but it also creates a situation with rather serious medico-legal implications. Not only might the physician find himself legally indefensible in the event that a bride developed gonorrheal salpingitis and sterility but in many instances he will find that his malpractice insurance will not protect him in case of false certification.

The premarital examination act should be changed to require that the individual show he does not have sero-positive syphilis and that the

ARIZONA MEDICINE

ARIZONA MEDICINE

Darwin W. Neubauer, M.D. Editor
Margaret McMahon Secretary to the Editor
720 N. Country Club Rd., Tucson, Arizona

ASSISTANT EDITORS

Robert Carpenter Arizona Medical Association Reports
Richard L. Dexter, M.D.
Joe E. Ehrlich, M.D.
Mayer Hyman, M.D.
Clarence L. Robbins, M.D.
Preston J. Taylor, M.D. Original Articles
Juan E. Fonseca, M.D.
Augusto Ortiz, M.D. Medical Society of the
Byron Browder United States and Mexico
Lindsay E. Beaton, M.D.
R. Lee Foster, M.D.
William B. McGrath, M.D.
Leslie B. Smith, M.D. Editorial Section
Howell S. Randolph, M.D. In Memoriam
Andre J. Bruwer, M.D. Reprints
John W. Kennedy, M.D.
Paul J. Matte, Jr., M.D. Historical Section

ASSOCIATE EDITORS

Charles W. Elkins, M.D. Neurosurgery
A. K. Hansen, M.D. Ophthalmology
Louis G. Jekel, M.D. Dermatology
Robert Lacock, M.D. Ob-Gyn.
C. Thomas Read, M.D. Chest Surgery
Wallace A. Reed, M.D. Medical Economics
Gerd Schloss, M.D. Pathology
Paul L. Singer, M.D. Genito-Urinary
Hugh H. Smith, M.D. Public Health
Alvin L. Swenson, M.D. Orthopedics
William G. Ure, M.D. Tuberculosis
Roger F. White, M.D. Pediatrics

Editorials of *Arizona Medicine* are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

ADVERTISING AND SUBSCRIPTION OFFICES

Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

"The material in this journal is not copyrighted. We would like to ask that anyone using material from it note the previous publication in *ARIZONA MEDICINE*."

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in *ARIZONA MEDICINE*. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

only documentation required be the report of a registered clinico-pathological laboratory. If the legislature does not see fit to review legislation within a reasonable time, the state medical association should advise its members to sign such certification with an added statement indicating the limitation of the examination.

A. C. van Ravenswaay, M.D.

CLOSED CHEST CARDIAC MASSAGE

If simplicity is a measure of greatness, it would seem that resuscitation is approaching that level. Replacing the many inefficient and relatively complicated techniques like back-pressure arm-lift or hip-lift back-pressure maneuvers, mouth-to-mouth ventilation is proving to be the most effective method yet developed to supply oxygen to a person who has stopped breathing or is breathing inadequately.

And for the "heart too good to die", it is becoming apparent that a closed chest cardiac massage is the first choice to drive blood to vital organs when a patient's circulatory system has failed. Whether this will replace the open method is yet to be determined; however, at Johns Hopkins Hospital, where closed chest massage was originated, the chest is never opened except in the presence of pneumothorax or intrathoracic hemorrhage, even when no pulse can be felt during the performance of closed massage. The Hopkins group feels that the closed method must be performed for several minutes to be effective; if then this method fails to produce adequate blood flow, irreversible brain damage has ensued which would make delayed application of the open procedure futile.

In any event, the very simplicity of these two resuscitation techniques produces problems which must be faced by every physician. First, it may be anticipated that any doctor, who formerly might have been excused for not unsheathing a scalpel and making an intercostal incision at the drop of a patient, will now be expected to institute closed chest cardiac massage when a pulseless person is presented to him for care, whether in the hospital or out. Secondly, as lay personnel are taught these two techniques—and closed chest massage should be taught only in

conjunction with the mouth-to-mouth breathing—it must be emphasized that they are not without hazard, and that successful recovery might actually be hindered should chest compression be applied when not indicated. The teaching of closed chest massage must include the diagnosis of pulselessness, or many an obliviously happy, horizontal victim might wake up the next morning with a punctured lung and a fractured rib from the massage he did not need.

All physicians should avail themselves of teaching guides now found on film and in a growing library of articles so that they may begin mouth-to-mouth resuscitation and closed chest cardiac massage in the appropriate situation without delay, and also be in a position to instruct others, when advisable, in these simple but effective life-saving measures.

Allan B. Carter, M.D.

ARIZONA MEDICINE

ARIZONA MEDICINE completes its second year serving as its own publisher. It is probably time to review and re-evaluate our stand and policy as developed during these years.

The prime threat presented in taking on this added responsibility by the Arizona Medical Association was a financial one. This proved more true than anticipated, for during the two year period there was a decided decline in national advertising, not only for this publication but for the 33 state medical journals. On a national basis, advertising fell off 10 per cent from 1959-1960, 28 per cent from 1960-61. In view of this almost catastrophic 38 per cent fall-off in national advertising during the period, the publication, *Arizona Medicine*, has managed to show an actual deficit of approximately \$2,000, and this in the face of taking over approximately \$4,200 per year, or \$8,400 during this period of general or central office overhead expenses. And further, this is without recognition of monies allotted to the publication by the society on a subscription basis.

While advertising has fallen off a total of 38 per cent during the past two years, it is anticipated and there are very concrete reasons for believing that an optimistic outlook can be held

for the future, for already an increased commitment of national advertising is to be noted. However, it is not likely that advertising will attain the boom levels of 1959.

It has been established that this is the official publication of the Arizona Medical Association and the Medical Society of the United States and Mexico. Its prime purpose is to be a means of communication, a reporting of the official news of this group. This material appears in the official section of the journal reporting the action of the Board of Directors and its various committees. It has been the editorial policy of the staff to submit editorial opinions which are their own; and the editorial pages of this journal at no time can be considered to reflect the opinion of the Board of Directors of ARMA. This does not happen to be a unique policy of this state publication but by usage is the established policy of state medical journals. The responsibility of the editorial staff is first of all to the reader.

The reports of the committees and Board of Directors are published in toto except for deleting material such as might prove libelous. It is not the desire of the editorial staff to brief this material, for in so doing material is taken out of the text. And too frequently there is misinterpretation or misrepresentation.

At the 1961 meeting of the Editors and Business Managers of the state medical journals, *Arizona Medicine* rated 75½. Mr. Forkert, the analyst for the publications, stated that a rating of 75 is "to be considered good—not mediocre, but definitely a good publication." The Editor and his staff feel that some very definite improvements need to be carried out. However, it is unfortunate that the rating was carried out entirely on format rather than on material presented.

An over-all effort has been made to improve all material, particularly original articles. Possibly this has been overemphasized, for the most important function of a state medical journal is to be a means of communication—a communication to you of the actions of your association so that you are aware of the steps taken by your Board of Directors and Committees so that you can accept, reject, but certainly be critical of the moves that are taken. This function seems particularly significant if Dr. Fishbein's recent words are correct that "The greatest threats to American medicine today are the unions and the hospitals—not the government."

At this same meeting of administrators of state medical journals, it was noted that a moderately large percentage of editors and business managers are either full time employees or at least received considerable stipend from the association. It is the opinion of this Editor and of a minority, but strong minority, of editors of the state medical journals that the editor of a state medical journal should never be paid but only his expenses covered.

AMPAC, the American Medical Political Action Committee, was established and received an enthusiastic vote of confidence in Denver. Dr. Gunnar Gunderson, former AMA President, is AMPAC board chairman. Joe D. Miller, a former member of the staff of the AMA, is the executive director. Headquarters are at 520 North Michigan Avenue, Chicago. AMPAC will strive to get more physicians into public affairs, educate them on important political issues, and help them to organize for effective political action.

We cannot but wonder at the legal implications in regard to the Hatch Act, etc., of the many medics who do consultation work for the government, and the legality of any contributions they may make to this organization.

The AMA again passed over a recommendation of the Judicial Council that it be clothed with original jurisdiction to discipline physicians who are guilty of violations of ethics even if they have not been subject to action by local levels.

(Editor's note: This is to be commended. This police action should remain with the local societies. The AMA should not act as prosecutor and judge; it should be in a position to review and receive appeals.)

The AMA declined to be pinned down to a rigid definition of "free choice of physician." Why?

During the fiscal year ending June 30, 1961, the National Institutes of Health awarded 13,683 grants totaling \$311,930,632. Eighty-eight per cent, or \$273,941,050 went to 1,224 institutions—including 217 in 47 foreign lands—for support in research projects. Of the remainder, 111 institutions received \$32,989,582 in Federal matching grants to construct, equip or expand research, and seven got \$5 million on a non-matching basis for the same purpose.

Twenty-two Public Health Service civil defense stockpile depots exist throughout the U.S. They are in Mira Loma and San Jose, California; Carterville and Seneca, Illinois; Jeffersonville,

Editorials

Indiana; Hampton, Iowa; Gilbertville, Massachusetts; Marshall, Michigan; Neosha and Springfield, Missouri; Prairie, Mississippi; Horseheads and Romulus, New York; Marion and Shelby, Ohio; Lebanon, Montoursville and Shamokin, Pennsylvania; Bastrop, Texas; Rockwood, Tennessee; Spokane and Yakima, Washington.

1966 DIAMOND JUBILEE FOR ARMA—It is time that specific and concrete steps be taken by this organization to develop an excellent program for the Diamond Jubilee. It is only reasonable to ask that the members of ARMA make suggestions either directly to the Board of Directors or to this publication at an early date for the type of program they would like to see developed for the Jubilee.

The publication, *Trauma*, a medico-legal publication covering medicine, anatomy and surgery for lawyers which has just published its third volume and third issue is excellent and impressive. It is brought to the attention of the members of the medical profession who by nature of their practice must appear in the courtroom frequently. It presents excellent background material.

EXCELLENCE

It is infrequent or not at all that we are seeing the word "excellence" used in our present discussion of the establishment of a medical school in Arizona. Let us drop back in the history of the development of this problem. Much of it arose with the Arizona Medical Association for it saw the need of a medical school within the State in the next few years. Actually initial discussions along this line began approximately five years ago. At that time there were no preconceived ideas as to the site of establishing the medical school. We did not even know if this state could afford to establish a medical school or if its rapid development could support a medical school. However Dr. Kohl and others wrote editorials as to the need of establishing this professional school in our State, and one thought permeated those discussions — that was, "If a medical school is to be established in Arizona it must be 'a first class medical school.'"

It is undoubtedly true that within the first few years of the establishment of a new immature school with a young faculty and the initial students it can attract that this will not be a school of excellence. But at no time can we lose sight that this is the aim, the goal, the intent of establishing a school in our State.

The medical profession has been criticized on many occasions, not only in Arizona but throughout the nation. A great part of the criticism is unjustified; some of it is well founded. However only rarely have we noted that this criticism has been for the administration of poor quality medicine in Arizona. It is true there are exceptional cases, but in general the standards of medical practice in Arizona are superior to those over the nation as a whole. Our climate, our way of life is attracting an interesting, progressive group of people. Among them it has attracted many potential instructors and professors of the medical profession who have elected to live in this part of the country and who have given this State an excellent stature in medical practice.

If we lose sight of the concept of excellence we cannot hope to attain a good medical faculty. A medical faculty that sees from the beginning that the primary site of decisions in regard to the medical school is controlled by the specific thought of the expenditure of a penny or a dollar will avoid an appointment in our school. Consequently we will have to go through laborious and embarrassing employment procedures to obtain a faculty, a faculty that even then will be of inadequate stature.

The establishment of a medical school which does not seek to attain excellence not only will fail to attract a superior and adequate faculty — it will fail to attract the caliber of students that we desire. The number of men entering medicine today is limited. Consequently even the best schools in America today do not have the selection that they had ten years ago. If then by the establishment of an inferior school which is governed entirely by "the most economical course," we will draw only the lesser qualified of medical school candidates. If we do this and educate this group of men, we will give Arizona an inferior brand of medicine. We will lower the standards that have been attained. This will be poor economy.

The climate of the Southwest is so attractive that we need not fear that this part of the coun-

try will attract an adequate number of medical men just as it is attracting an increasing group of the general population. We need to carry our own burden of educating medical students. We do not need to increase the number of doctors of inadequate training or poor training. This is detrimental not only to the scientific side of

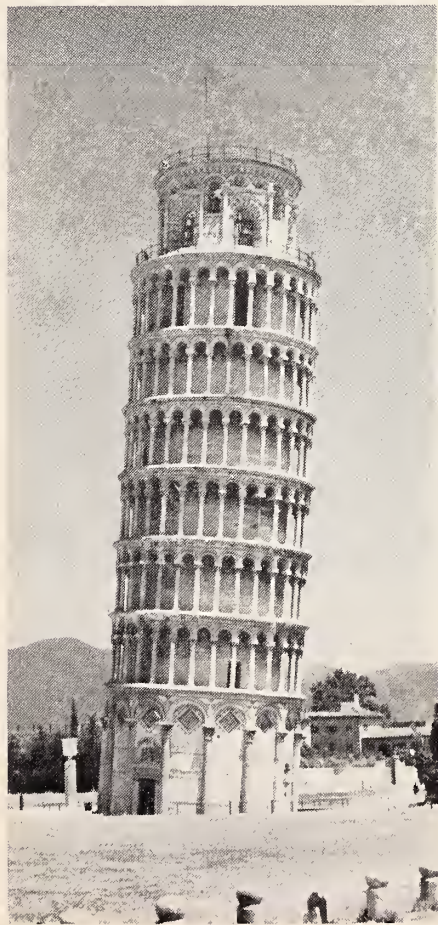
medical practice but it will lower moral and ethical standards as well.

At no time is one justified in basing a decision upon the establishment of the medical *school of least cost* if he is not simultaneously establishing a *school of excellence*.

Darwin W. Neubauer, M.D.

STRONG MEDICINE

Strong Medicine, by Dr. Blake F. Donaldson, deals with the "obesity sextette of potential killers": heart disease, hardening of the arteries, diabetes, high blood pressure, osteoarthritis and gall stones. In the second half he elaborates, with many histories, on the allergies to which both children and adults are subject.



When treatment for
IMPOTENCE
is indicated

ANDROID^{T.M.} tablets
ANDROGEN-THYROID-COMBINATION

in two convenient dosage forms

ANDROID

Each yellow tablet contains:
Methyl Testosterone2.5 mg.
Thyroid Ext. (1/6 gr.)10 mg.
Glutamic Acid50 mg.
Thiamine HCl10 mg.

ANDROID-H.P. (High Potency)

Each orange tablet contains:
Methyl Testosterone5 mg.
Thyroid Ext. (1/2 gr.)30 mg.
Glutamic Acid50 mg.
Thiamine HCl10 mg.

INDICATIONS: Impotence in male.

AVERAGE DOSE: One tablet three times daily.

AVAILABLE: Bottles of 100 and 500 at your pharmacy.

CAUTION: Not to be used when testosterone is contra-indicated.
Federal law prohibits dispensing without prescription.

1. *Methyl-Testosterone-Thyroid in the Treatment of Impotence*, A. S. Titoff (Prepub. Report).
2. *Thyroid-Androgen Relations*, L. Hellman, et al., *The Jrl. of Clin. Endocrinology and Metabolism*, August 1959.

Write for samples and literature...

BROWN THE BROWN PHARMACEUTICAL COMPANY
2500 West Sixth Street, Los Angeles 57, California

“The first prescription I ever wrote
was for ‘Empirin’ with Codeine...



and it is still my stand-by
for pain relief today.”

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

*Remember there are now
four strengths available...*

**Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.*

No. 1 — gr. ⅛
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

TOO WELL To Stay in The Hospital . . . TOO SICK To Go Home . . .

If your **PATIENT** is in this category, the **WHITE ANGEL INN**
is the answer to your problem of convalescent care.

A New Concept In Convalescent Care . .

WHITE ANGEL INN

1845 East Thomas Road

- The ideal place to **speed your patient's recovery** after adequate hospital care.
- Attractive, happy surroundings, old-fashioned kindness, plus loving consideration will **make your patient's recovery faster.**
- **Rehabilitative care** for elderly or handicapped patients.
- **Physical therapy** service directed by John A. Julian, Registered Physical Therapist.
- **Inhalation therapy** for IN & OUT-PATIENTS is directed by the well known Mrs. Ruth H. Watson, R.N., A.A.I.T.
- **Registered nurses** on duty at all times.
- **Orderlies available** for male patients.
- **Homelike cooking** by women cooks; **special diets** supervised by qualified dietitian.
- **Rates** start at \$14.00.
- **Admittance by** Doctors of Medicine only.
- Our facilities are **recognized by the Arizona Industrial Commission** for the admission of patients upon the approval of the attending physician.

**White Angel
Inn
Phone
277 - 6651**



**White Angel
Inn
Phone
277 - 6651**

From Winthrop Laboratories—

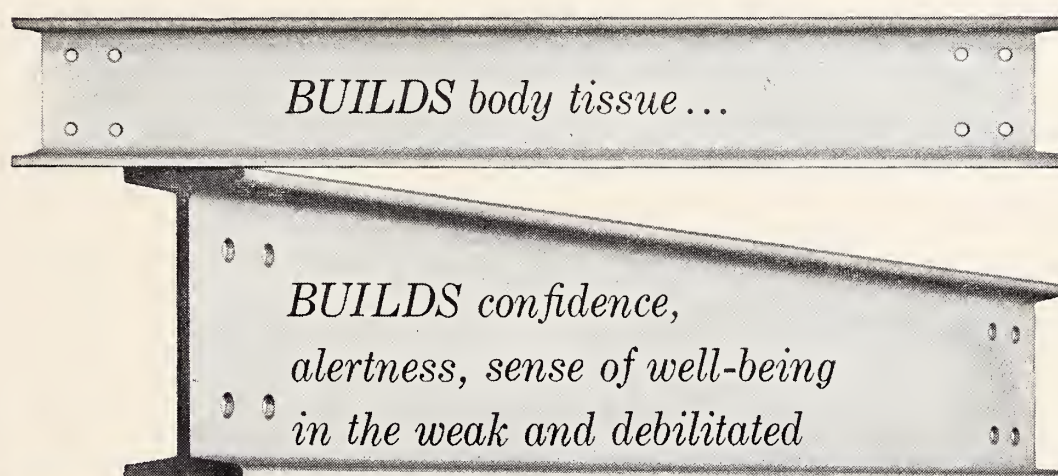
A SIGNIFICANT NEW PHYSIOTONIC

to treat the TOTAL patient

WINSTROL

BRAND OF STANOZOLOL

TRADEMARK



With *thirty* times the anabolic activity of methyltestosterone... and only *one-fourth* its undesirable androgenicity*—well tolerated WINSTROL therapy results in:

- Marked improvement in appetite
- Measurable weight gain
- Notable increase in vigor, strength and sense of well-being

for ... the tired, weak, irritable catabolic patient unable to overcome daily lethargy
... the elderly person with asthenia, inanition, anorexia or osteoporosis
... the patient with malignant, chronic or infectious disease
... the listless, undernourished child
... the adolescent with persistent underweight
... the patient on prolonged steroid therapy—to counteract catabolic effects

With WINSTROL, patients look better, feel stronger—because they are stronger.

Dosage: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, $\frac{1}{2}$ tablet b.i.d. Available in bottles of 100 tablets.

*animal data

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

Winthrop LABORATORIES
1450 Broadway • New York 18, N. Y.

1671M



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.



STRESSCAPS®

Stress Formula Vitamins Lederle

Each capsule contains:

Vitamin B ₁ (Thiamine Mononitrate)	10 mg.
Vitamin B ₂ (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B ₆ (Pyridoxine HCl)	2 mg.
Vitamin B ₁₂ Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

Continuing to grow in clinical stature

Terramycin[®]

BRAND OF OXYTETRACYCLINE



Continuing to grow in clinical stature

Recent medical literature¹⁻²⁷—adding to an already massive bibliography—continues to document the effectiveness of well-tolerated Terramycin in respiratory and other infections.

Recent bibliography: 1. A.M.A. Council on Drugs, New and Nonofficial Drugs 1961, Philadelphia, Lippincott, 1961, pp. 142-147. 2. Beckman, H.: The Year Book of Drug Therapy, Chicago, Yr. Bk. Pub., 1961, p. 271. 3. Eastman, N. J., and Hellman, L. M.: Williams Obstetrics, ed. 12, New York, Appleton-Century-Crofts, 1961, pp. 845-1035. 4. Keefer, C. S., in Modell, W.: Drugs of Choice 1960-1961, St. Louis, Mosby, 1960, pp. 141, 146, 147. 5. Huang, N. N.: J. Pediat. 59:512, 1961. 6. Smith, R. C. F.: Brit. J. Clin. Practice 15:345, 1961. 7. Asay, L. D., and Koch, R.: New England J. Med. 262:1062, 1960. 8. Berry, D. G., et al.: Lancet 1:137, 1960. 9. Osol, A., et al.: The Dispensatory of the United States of America, ed. 25, Philadelphia, Lippincott, 1960, pp. 953, 1556. 10. Adams, A. R. D.: Brit. M. J. 1:1639, 1960. 11. Jung, R. C., and Carrera, G. M.: Dis. Colon & Rectum 3:313, 1960. 12. De Lamater, J. N.: Am. J. Gastroenterol. 34:130, 1960. 13. Stewart, W. H., et al., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. II, chap. 5, p. 19. 14. Wellman, W. E., and Herrell, W. E., in Kelley, V. C.: Brenneman-McQuarrie-Kelley Practice of Pediatrics, Maryland, Prior, 1960, vol. I, chap. 44, p. 13. 15. Wenckert, A., and Robertson, B.: Acta chir. scandinav. 120:79, 1960. 16. Alstead, S.: Dilling's Clinical Pharmacology, ed. 20, London, Cassell, 1960, p. 462. 17. Grover, F. W.: Texas J. Med. 57:355, 1961. 18. Gardiner, W. P., and Gomila, R. R., Jr.: Scientific Exhibit, Venereal Disease Seminar, U.S. Public Health Service, Feb. 28-Mar. 3, 1961. 19. Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, 1961. 20. Nathan, L. A.: Scientific Exhibit, 15th Clinical Meet., A.M.A., Denver, Col., Nov. 26-30, 1961. 21. Ullman, A.: Delaware M. J. 32:97, 1960. 22. Lamphier, T. A.: Scientific Exhibit, New York State M. Soc. Meet., New York, May 7-13, 1960. 23. Freier, A.: Paper presented at Michigan Soc. Obst. & Gynec., Detroit, May 3, 1961. 24. Logan, K. M.: Scientific Exhibit, Ann. Meet., Ohio Acad. Gen. Practice, Cincinnati, Sept. 13-14, 1961. 25. Altemeier, W. A., and Wulsin, J. H. (A.M.A. Council on Drugs Report): J.A.M.A. 173:527, 1960. 26. Krol, W. J.: J. Abdom. Surg. 3:78, 1961. 27. Potempa, J.: Med. Klin. 56:352, 1961.

Terramycin®

OXYTETRACYCLINE WITH GLUCOSAMINE

CAPSULES

250 mg. and 125 mg. per capsule

In Brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated. For complete dosage, administration, and precaution information, read package insert before using.

More detailed professional information available on request.

“Quarreling and Quarantine” Or The Bisbee-Douglas Feud

Dry Gulch Jake

This was the title of an editorial in the Douglas Daily Dispatch, March 20, 1912. It began: “It seems that Cochise County has a Superintendent of Health (L. L. Miner, M.D.) who is more capricious than capable, more chimerical than clinical. In common with the average Bisbeeite, he figures that the county — is confined within the corporate limits of Bisbee. When some unscrupulous, revengeful, irresponsible and untruthful citizen of Douglas sent an alarming account of health conditions here — to the County Superintendent, Dr. Miner, became very solicitous for the welfare of Bisbee. — He issued instructions to the local postoffice regarding mail to Bisbee though not a word was said regarding mail for Tombstone and other cities of the county.

“The local postmaster, who was already acting under the orders of the City Board of Health, very rightfully told the Bisbee physician to go to a place where fumigation is not necessary, or words to that effect.

“And this report was sent in after what little smallpox we had was under control, schools and theatres were opened.

“Dr. Looney (State Superintendent of Health) came down here evidently determined to close up the city and he did so after a cursory examination. . . . Dr. Looney had the authority and was determined to use it. . . . So it reverts to a petty quarrel which has resulted in the city again being partially quarantined.

“Citizens of Douglas will not soon forget Dr. Miner and will also be pleased to pay their respects to Dr. Looney at their first opportunity.”

It must be agreed that the editor had an opinion, he spoke it in acidulous phrases, a bit different from the sonorous editorials of today.

The Douglas Daily Dispatch, March 21, 1912, simmered down and reported that Dr. Looney had stated “I feel that to be on the safe side . . . that all public gatherings be discontinued for a time. The people of Douglas have misunder-

stood my coming down here. I did not come to threaten but to advise”.

These newspaper accounts together with letters from Dr. Miner to Dr. Looney are to be found in the Historical Archives of the State Health Office in Phoenix and they provide some exciting reading.

For instance, Dr. Miner wrote, on March 9, 1912, to Dr. Looney: “On January 17th, the proprietor of the Mission House, also a truant officer, and a Salvation Army Officer (holding weekly services at the County Hospital) displayed an eruption of smallpox. The case was reported to the Health Department at Douglas, January 20th. During the interval, he was visited by many people, including two Salvation Army girls. He was removed to the Detention Hospital . . . his house was quarantined, fumigated, guests vaccinated and observed for 14 days. No other cases found, quarantine was raised. At this time, a dressmaker who had been visited by Salvation Army girls, had a light case of smallpox and was quarantined in residence with her husband. No case from this appeared until February 26th, when other cases appeared which I am informed that you are aware of in their sequence.

“One case, on account of public criticism, should be presented to you. February 14th, a traveling man developed at the hotel an eruption resembling smallpox and was removed to a suspect ward of the Detention Hospital. Three days after detention, eruption, apparently syphilitic, was so pronounced by four able physicians. The clothing was fumigated and was removed from the hospital two days later upon the death of the patient. His undertaker developed smallpox seven days later. Of the three undertakers who developed smallpox, one died.

“On account of the removal of this patient and the published information, the public at once accepted this as the source of the disease and severe public criticism resulted.

Topics

"Immediately after taking this office, I went Douglas to request closure of the schools. Bitter resistance was encountered from some of the School Board and amongst the bitterest was Dr. Wright (he was the health officer at Douglas). Their chief argument against this measure was that it would hurt the town as it would admit then that there was smallpox prevalent and it had been present in the most dangerous places namely laundry wrappers, drivers, butchers, three undertakers, and other citizens including a boarding house proprietor, all told, eleven Americans and two Mexicans.

"Bitter criticism was rife then, yet they were loath to take even the first protective measures. The following night the District Attorney and myself thought best to close theatres and churches.

"As you can see, there is unnecessary jealousy between these two towns, mutually dependent upon each other, but still exists. Whether or not the fact that this office has fallen to Bisbee for the first time has been the cause of any increased jealousy in Douglas, I am unable to state, but I can state that the suggestion of the ordinary protective measures ordinarily instituted by the average incorporated town upon its own

Their epidemic originated in dangerous sources — laundry for one and they permitted laundry to be shipped to outside towns after the outbreak of the epidemic. One of their papers exaggerates the condition and others scarcely mention it. These and many minor incidents have caused much indignation against Douglas.

"Until last night, for the past three days, conditions looked more hopeful. Three cases and one death is the history of yesterday. A driver of a coal and wood wagon is one of the cases, and while not certain, I think the other is a driver also. The third developed in the hospital." His letter continues with some more discussion as to how control of this infection has been so negligent and the difficulties he has encountered.

On March 15, 1912, Dr. Miner further reported, "Last night Douglas reported one death, a driver ill for six days, another man unexpected to live. They reported another case in a Negro woman released from the County Hospital 14 days ago. She had been circulating at liberty in the interval.

"For two days the Douglas postmaster has sent mail in a pouch with all Eastern mail, con-

trary to instructions of his Chief Postal Clerk and against advices and requests of the Health Board. In view of this fresh outbreak I can see no other recourse than to declare against all their mail until the postmaster shows willingness to assist, rather than resist protective measures, along with disobeying postal orders".

It was at this time that Dr. Looney, after consultation with the State Board of Health, went to Bisbee and Douglas and inaugurated the quarantine measures in Douglas.

This is simply a short account of one of the interesting experiences which Dr. Robert N. Looney encountered while State Health Superintendent. Further letters from Dr. Miner indicate that the quarreling and quarantine gradually subsided and the last case was discharged about a month after Dr. Looney's visit to that vicinity.

It should be added that Dr. Looney went to Douglas with full authority from the Governor of the State, George W. P. Hunt, to proclaim martial law, prevent any intercourse by citizens either through the mail, by train or any other means with any other part of the county, if the recalcitrant citizens and authorities would not abide by the recommendations which Dr. Looney felt necessary to promulgate. They capitulated.

Some fifty years later the "quarreling and quarantine" is long since forgotten.

John W. Kennedy, M.D.

ARIZONA POISONING CONTROL INFORMATION CENTER ASPIRIN POISONING

During the 18 month period of January 1, 1960 to July 31, 1961, 26 per cent (443 cases) of 1703 poisoning cases reported to the Arizona Poisoning Control Information Center, at The University of Arizona, were caused by the accidental ingestion of aspirin. The majority of these cases involved children 1 to 5 years of age. In Arizona, as in the rest of the United States(1), aspirin is undoubtedly the greatest single cause of poi-

soning in small children. The high incidence of aspirin poisoning is unquestionably related to the widespread use of this drug and to the lack of awareness of its toxic potentialities. Perhaps the ubiquitousness of aspirin has lulled the public into assuming that aspirin is harmless. The ads and TV commercials which urge the public to use more aspirin (take it for colds, take it for fever, take it for aches and pains, take it for sleep, take it for discomfort due to heat, etc.) do not contribute to the public's respect for the toxic nature of this drug. Indeed, to encourage children and infants to take aspirin, many manufacturers have been producing and selling candy-flavored aspirin tablets. In recognition of the toxic nature of aspirin, some manufacturers are packaging the drug in "safety-cap" bottles. However, it is ironical to note that in at least one ad, which appears in a medical journal, the manufacturer in one statement emphasizes the attractive flavor of its children's aspirin and further along in the same ad points out the "safety-cap" feature of the container. In a systematic investigation of 128 cases of aspirin poisoning in children, Meyer,² observed that the majority of the cases (84) involved candy-flavored aspirin contained in a "safety-cap" bottle. He pointed out that most children easily bite off the cap of the "childproof" safety container widely used in commercial preparations. He further noted that many of the parents felt that aspirin was not really dangerous and that the child could not possibly open the "safety cap" or reach the bottle. Thus, it is obvious that ineffectual safety devices may actually constitute an additional hazard in that they may reduce the cautiousness of parents by giving them a false sense of security. Other findings of the investigation revealed a direct relationship between the poisoning of a child and (a) family illness, (b) exceptional resourcefulness on the part of the child involved, and (c) chronic family imbalance (instability).

In view of the present commercial status of aspirin and in view of the potential toxicity of the drug, it is urged that practitioners in the health field (physicians, dentists, pharmacists, nurses, etc.) emphasize to patients the inherent dangers of aspirin. Parents should be instructed never to administer medication to their young ones under the guise of "candy" and always to store aspirin and other medicines in locked cabinets, whether or not there are "safety caps" on

the containers. They should also be informed of the need for increased precautions at times of illness and other family stress.

STATISTICS OF 88 POISONING CASES IN ARIZONA DURING AUGUST, 1961

	Number	Percent
AGE:		
Under 5 years	59	67.0
6 to 15 years	1	1.1
16 to 30 years	12	13.6
31 to 45 years	10	11.4
Over 45 years	4	4.5
Not reported	2	2.3
NATURE OF INCIDENT:		
Accidental	69	78.4
Intentional	19	21.6
TIME OF DAY:		
Between 6 a.m. and noon	24	27.3
Between noon and 6 p.m.	26	29.5
Between 6 p.m. and midnight	19	21.6
Between midnight and 6 a.m.	4	4.5
Not reported	15	17.0
OUTCOME:		
Recovery	200	100.0
Fatal	0	0.0
CAUSATIVE AGENTS:		
Internal Medicines		
Aspirin	22	24.8
Other Analgesics	1	1.1
Barbiturates	11	12.4
Antihistamines	1	1.1
Laxatives	1	1.1
Cough Medicine	0	0.0
Tranquilizers	6	6.7
Others	5	5.6
	----	----
Subtotal	47	52.8
External Medicines		
Liniment	0	0.0
Antiseptics	1	1.1
Others	0	0.0
	----	----
Subtotal	1	1.1
Household Preparations		
Soaps, Detergents, etc.	0	0.0
Disinfectants	3	3.4
Bleach	4	4.5
Lye, corrosives, drain cleaners	1	1.1
Furniture and floor polish	3	3.4
	----	----
Subtotal	11	12.4
Petroleum Distillates		
Kerosene	0	0.0
Gasoline	1	1.1
Others	1	1.1
	----	----
Subtotal	2	2.2

Topics

Cosmetics	5	5.6
Pesticides		
Insecticides	8	8.9
Rodenticides	1	1.1
Others	0	0.0
	---	---
Subtotal	9	10.1
Paints, Varnishes, Solvents, etc.	1	1.1
Plants	6	6.7
Miscellaneous	4	4.5
Unspecified	3	3.4
	---	---
TOTAL	89*	100.0

STATISTICS OF 87 POISONING CASES IN ARIZONA DURING SEPTEMBER, 1961

	Number	Percent
AGE:		
Under 5 years	65	74.7
6 to 15 years	3	3.4
16 to 30 years	8	9.2
31 to 45 years	3	3.4
Over 45 years	6	6.9
Not reported	2	2.3
NATURE OF INCIDENT:		
Accidental	78	89.7
Intentional	7	8.0
Unknown	2	2.3
TIME OF DAY:		
Between 6 a.m. and noon	36	41.4
Between noon and 6 p.m.	15	17.2
Between 6 p.m. and midnight	15	17.2
Between midnight and 6 a.m.	3	3.4
Not reported	18	20.7
OUTCOME:		
Recovery	87	100.0
Fatal	0	0.0
CAUSATIVE AGENTS:		
Internal Medicines		
Aspirin	30	34.2
Other Analgesics	0	0.0
Barbiturates	4	4.5
Antihistamines	4	4.5
Laxatives	0	0.0
Cough Medicine	1	1.1
Tranquilizers	3	3.4
Others	8	9.1
	---	---
Subtotal	50	56.8
External Medicines		
Liniment	0	0.0
Antiseptics	0	0.0
Others	3	3.4
	---	---
Subtotal	3	3.4
Household Preparations		
Soaps, detergents, etc.	2	2.3
Disinfectants	0	0.0
Bleach	2	2.3
Lye, corrosives, drain cleaners	3	3.4
Furniture and floor polish	0	0.0
	---	---
Subtotal	7	8.0

Petroleum Distillates		
Kerosene	0	0.0
Gasoline	0	0.0
Others	3	3.4
	---	---
Subtotal	3	3.4
Cosmetics	1	1.1
Pesticides		
Insecticides	5	5.7
Rodenticides	3	3.4
Others	0	0.0
	---	---
Subtotal	8	9.1
Paints, Varnishes, Solvents, etc.	1	1.1
Plants	6	6.9
Miscellaneous	8	9.1
Unspecified	1	1.1
	---	---
TOTAL	88*	100.0

The total number of causative agents exceeds the actual number of poisoning cases, since in certain individuals, poisoning incidents, more than one agent was involved.

REFERENCES

1. H. M. Conn, D. S. Neyman, and H. L. Verhulst, Control of Accidental Poisoning — A Progress Report, J.A.M.A., 168:717, Oct. 11, 1958.
2. R. J. Meyer, Acetylsalicylic Acid (Aspirin) Poisoning, Am. J. Dis. Child, 102:17, July, 1961.

WILLIS R. BREWER, Ph.D., Dean, College of Pharmacy, The University of Arizona, Tucson; ALBERT L. PICCHIONI, Ph.D., Pharmacologist and Director, Arizona Poisoning Control Program, The University of Arizona, Tucson; LINCOLN CHIN, Ph.D., Pharmacologist, The University of Arizona, Tucson.

AMBULATORY TREATMENT OF TUBERCULOSIS

The “sine qua non” in the treatment of tuberculosis has been rest. Chemotherapy has, of course, greatly shortened the period of rest and hospitalization.

An article in the July 1961 issue of “The American Review of Respiratory Diseases” details a radical departure from the time honored tradition that exercise in the treatment phase of active tuberculosis is bad.

A clinical study was conducted at one of our Army hospitals using controlled physical activity as part of the therapy in 105 tuberculosis patients. These were all previously untreated patients. In 62 per cent the disease was moderately to far advanced; 44 per cent had cavitary disease at the time of original diagnosis; 87 per cent were sputum positive.

All patients were treated with INH and PAS. Streptomycin was given to those unable to toler-

ate PAS or added as additional treatment in patients with extensive disease.

Asymptomatic patients were started on active calisthenics within two to four weeks of admission. In a few of the far advanced cases, calisth- nics were started at the end of two months' initial rest. The calisthenics were on the level of acti- vity given to regular troops during the period of basic training. The period of activity was 15 min- utes daily 5 days a week until the patient reached a non communicable stage. Then active sports were added for a minimum of one hour daily 5 days a week. Also, on-the-job training was begun and the patient quickly worked up to a full eight hour a day schedule several months prior to discharge from the hospital.

The average duration of hospitalization was 12 months. Of the 105 patients, 33 had resection-

al surgery. Seventy-one of the 81 patients with positive sputum were negative at the end of two months. Only three patients were discharg- ing tubercle bacilli at the end of four months. One hundred of the 105 patients were discharged as fit for duty.

From this study one is forced to recognize the merits of this type of progress in treating newly diagnosed cases of tuberculosis. The series is large enough to offer good evidence that con- trolled exercise as part of treatment has great advantages both physically and mentally. Time lost from work is reduced, and most important is the demonstration that the handicap of re-em- ployment in the patient's regular occupation need no longer plague the employer and the employee to the measure that it has in the past.

O. J. Farness, M.D.

	PIMA COUNTY TUBERCULOSIS REGISTER						
	Dec. 31	Dec. 31	June 30	Dec. 31	June 30	Dec. 31	June 30
	1955	1957	1959	1959	1960	1960	1961
Total Cards on Register	1,550	1,250	1,178	1,110	1,020	989	1,009
Minus Suspects and Deaths			- 88	-133	-109	- 98	- 79
Total Cases on Current File			1,090	977	911	891	930
Cases Hospitalized for TBC			205	195	161	137	146
Cases at Home				782	750	754	784
Acative or Probably Active				250	242	232	258
Total Cases on Medication				429	456	528	562
				(44%)	(50%)	(60%)	(60%)

MEDICAL COURT CASES

By Howard Newcomb Morse,
Councillor at Law of the Supreme Court of the
United States of America

Dodds vs. Stellar
District Court of Appeals of California
175 P. 2d 607

Harold P. Dodds, while at work for the Cali- fornia Shipbuilding Corporation, suffered a bruise and laceration between the distal and me- dial phalanges of his middle, left finger about the size of a dime when a steel beam fell upon it. He reported at once to the first-aid hospital, where, under the direction of Dr. Waterman, an employee of Dr. Robert Woodley Stellar, he ex- tended the injured member for 10 minutes into the radiation of the roentgenograms applied in conjunction with a fluoroscope while the physi- cian examined the injury. He then soaked it in a solution of epsom salts after which it was

dressed with ointment and bandaged.
Dodds returned at intervals of two or three days for three weeks for the treatments while he continued at his work. Although he took spe- cial care of the finger it did not cause him dis- tress. After the sixth treatment the injury healed. About four days later it broke open, making a wound about half an inch in length. Thereafter it habitually healed in approximately a week and broke open again in four days. This continued for almost seven months, during which time he did not report this unusual occurance to anyone in the hospital.
He returned to the emergency hospital when a callus had formed over the wound, and a roent- genogram was made of the injured area. He then obtained from the hospital a piece of adhesive tape and wrapped it around the sore spot. It remained for four or five days during which he felt a burning, irritating pain which had first occured about a month prior to the formation of the callus. On removing the tape the callus came off.

Topics

He then returned to the hospital, where he was referred to Dr. Stellar. He discontinued work. After an examination by an associate of Dr. Stellar at the latter's office he was examined next by Dr. Foster, a specialist in dermatology. At that time the physician found "on the anterior surface of the finger" an arthrempyesis about a half inch in diameter with a small ulcer in the center. The posterior surface was smooth and red. Basing his opinion upon such examination and upon the history given by the patient, Dr. Foster later testified that his diagnosis was "X-ray ulcer with dermatitis," an ulcer produced by radiation of radium or roentgenogram with the surrounding area inflamed.

Dodds was examined by Dr. Meland, to whom he complained of pain in his arm as well as in the ulcer. The diagnosis was "trophic ulcer, consistent with roentgen dermatitis," an "ulcer that has no tendency to heal, that appears secondary to a large dose of radiation usually administered through the X-ray tube." The physician saw him four times subsequently and administered medicants: pontocain and sulpha drugs to the wound, leaves of cactus plant, radon ointment, lanolin and vaseline.

Dr. Meland finally recommended excision of the ulcer which was performed by others at the hospital. This operation did not clear up the infection which was in the wound. The physician later testified that the pain caused by a roentgenogram burn is of a burning type with occasional stabbing sensations. The excision was down to the tendon. There was then a possibility of doing a graft but the infection could not be cleared up. The patient suffered a red rash with water blisters as a result of his allergic reaction to the sulpha drugs and continued to have pain which could be relieved only by codein. Dr. Meland recommended amputation of the entire finger to which Dodds acquiesced and the operation was performed. The swelling progressed up his arm and the increased temperature and redness of the skin necessitated the opening of the wound. The wound healed slowly. Thereafter he was discharged from the hospital.

Dodds was examined by Dr. Shelton at the California Hospital. The case history as given to him by the patient was as follows: "I went to the First-Aid Emergency Hospital on Terminal Island where a fluoroscopic examination was made. No fracture reported. There was a cut on the finger which healed but left quite a thick

callus-like area which continued to be painful. I went back to work, but the same continued and X-rays were made. The callus and skin broke down, drained, and did not heal afterwards."

Basing his opinion upon his examination and the history Dr. Shelton subsequently testified that it was a "trophic ulceration with dermatitis . . . consistent with an X-ray burn . . . There were some fibrosis changes in the tissue such as accompany trophic ulceration and circulation was impaired in that area . . . I thought amputation would be necessary . . . but in view of the patient's objection, I though we would try the next best thing . . . to remove the ulcer and scar . . . with the idea of putting a graft of skin . . . in the defect after the effects had healed."

With Dr. Meland's concurrence Dr. Shelton excised the ulcerated area down to the level of the tendon sheath for the purpose of grafting over the area. They had little hope of success but gave the patient the benefit of such procedure, since he preferred not to have an amputation. Dr. Shelton discovered "changes in the tissue such as accompany trophic ulceration. . . . My opinion was that if the finding which we noted could be due to x-ray, if there was a definite x-ray exposure it would account for the condition. The wound had a persistent septic, low-grade bacterial infection. It is possible for a chronic ulcer to develop with repeated trauma to an infected wound."

Dr. Wright, a specialist in pathology, made a microscopic examination of the tissue taken from the patient's ulcer. This showed such changes as characterize prolonged roentgenogram radiation. He examined the amputated finger, which also revealed changes caused by a roentgenogram burn and observed that there are no causes for such changes other than radium or roentgenogram radiation.

Dodds brought an action in the Superior Court of Los Angeles County, California, against Stellar to obtain damages for the injuries allegedly resulting from the latter's negligent use of the fluoroscope in examining his hand. A jury returned a verdict for Dodds in the amount of \$10,000 general damages and \$4,942.05 special damages. The court entered judgment accordingly, and Stellar appealed.

The District Court of Appeal of California affirmed the decision of the court below. The District Court of Appeal declared: ". . . the hand . . . suffered a burn as a result of the . . . ex-

posure, a trophic ulcer formed and respondent (Dodds) suffered. These are the facts which are established by the testimony . . . the jury . . . chose to find that while the injured hand was exposed to an x-ray tube, with the machine running, the hand was burned; and four experts testified that in view of the history given the wound was caused by either radium or x-ray radiation. This is more than a scintilla of evidence. It is substantial proof."

BOARD OF MEDICAL EXAMINERS

The Board of Medical Examiners of the State of Arizona at a regular meeting held Saturday, October 21, 1961, issued certificates to practice medicine and surgery in this State to the following doctors of medicine:

BAUM, William Stanhope (I), 4110 N. 16th St., Phoenix, Arizona.

BEHNAM, Darius (PATH), 3544 W. Minnezona, Phoenix, Arizona.

BEN-ORA, Avi (GP), 2040 W. Bethany Home Rd., Phoenix, Arizona.

BINDELGLAS, Paul Melvin (P), 315 Central Park West, New York 25, N. Y.

BOLSTAD, Orville Ignatius (OrS), 726 N. 12th, El Centro, California.

BONAR, Lloy D. (OBG), 120 Sturges Avenue, Mansfield, Ohio.

BRATRUD, Theodor Edward (PATH), Maryvale Hospital, Phoenix, Arizona.

BROWN, Edmund Curtis (D), 709 Gibun Dr., Iowa City, Iowa.

CHRISTIANSON, John Frederick (I), 926 E. McDowell Rd., Phoenix, Arizona.

CIOLA, Louis Francis (ANES), 591 Roycroft Boulevard, Buffalo 25, N. Y.

CISSELL, III, Samuel Cornelius (GP), 6847 E. Lafayette Boulevard, Scottsdale, Arizona.

CUTSHAW, James Arthur (GP), Monroeville, Indiana.

DALLIS, Nicholas Peter (P), 60 E. Lincoln Dr., Scottsdale, Arizona.

DOWLING, George Warren (R), 821 Jeffee, Kermit, Texas.

EHRMANN, Norbert August (GP), Ray Hospital, Ray, Arizona.

ERICKSON, Delbert Lee (GP), 6047 N. 16th St., Phoenix, Arizona.

ERWIN, John Robert (P), 2716 Moundview Dr., Topeka, Kansas.

EVENSEN, Kenneth LaMar (GP), 461 W. Catalina Dr., Phoenix 13, Arizona.

EWING, Donald Dean (GS), 720 N. Country Club Rd., Tucson, Arizona.

FERRARI, Alfred Julius (GP&S), 1550 Sheridan Dr., Kenmore 17, New York.

FISHEL, Glenn Francis (GP), 12 N. Bourne St., Tolono, Illinois.

FISHER, Joseph (I), 276 Riverside Dr., New York 25, New York.

FURROW, Virginia Stovall (PED), Route 4, Box 215, Tucson, Arizona.

GINDHART, Floyd Dare (OBS-GYN), 1213 Hamilton Ave., Trenton 9, New Jersey.

HANAN, Robert (PATH), 501 N. 18th, Phoenix, Arizona.

HARPER, Charles Richard (GP), 1013 Litchfield Rd., Goodyear, Arizona.

HEIMARK, Julius Jacobson (GP), 12665 W. Augusta Dr., Sun City, Arizona.

HEIMBACK, Dennis Philip (GP), 2710 Zuni, Glendale, Arizona.

IHM, Gerhard Ludwig (GP), 326 W. Earll Dr., Phoenix, Arizona.

KARTCHNER, Charles Dean (GP), Benson, Arizona.

KUCHERA, Lucile B. Kirtland (GP), 1036 E. Tuckey Lane, Phoenix 14, Arizona.

KUMAGAI, Tamio (GP), P. O. Box 516, Glendale, Arizona.

KUNTZ, Daniel Joaquin (GS), 24 North Hibbert St., Mesa, Arizona.

LANGSAM, Charles Lewis (P&CHILD P), 10300 Carnegie Ave., Cleveland 6, Ohio.

LAUGHEAD, Charles Adelbert (I), Box 32, Whipple, Arizona.

LINGENFELTER, John Graham (GP), 412 East Oak St., Kingman, Arizona.

McLAUGHLIN, II, Edward James (R), State University of Iowa, Iowa City, Iowa.

MATERN, Donald Ivan (OrS), 632 W. Duarte Rd., Arcadia, California.

MATTSON, Robert Marvin (GP), 248 Main St., Johnstown, Pennsylvania.

MILLER, Arden LaVerne (I), 402 Physicians & Surgeons Bldg., 9th St., Minneapolis, Minnesota.

MYERS, William Richard (I), 1515 North 9th St., Phoenix, Arizona.

Topics

NADIG, Perry Williams (U), 5201 W. 72nd St., Prairie Village, Kansas.

NESS, Claire Marie (Child Psy), 2050 East 96th St., Cleveland 6, Ohio.

O'DEA, Norman Joseph (OBG), 3705 East Colfax Ave., Denver 6, Colorado.

OURSLAND, Robert Jewell (S), Maricopa County General Hospital, Phoenix.

OVERTON, JR., Roy William (GP), 2611 Ingersoll, Des Moines, Iowa.

PATTERSON, Robert Banvard (GP), Morenci Hospital, Morenci, Arizona.

POLAN, Nathan Norman (GP), 5146 N. 11th Ave., Apt. 201, Phoenix, Arizona.

POPPICK, Harry Morris (GP), 83 Maple Place, Keyport, New Jersey.

POTZLER, William Raymond (GP), Stage Building, Nogales, Arizona.

PRAVER, Louis Lloyd (D), 350 E. Broad St., Columbus, Ohio.

RICHARDS, Elizabeth Moriarity (GP), 5824 North Fourth Place, Phoenix, Arizona.

RICHARDS, IV, John (OBG), 5824 North Fourth Place, Phoenix, Arizona.

RITTER, Edward Louis (GP), 623 - 17th St., Modesto, California.

RUBINOW, Mitchell Jay (GP), 224 E. Thomas Road, Phoenix, Arizona.

RUMMEL, JR., William David (OPH), Elks Building, Prescott, Arizona.

RYAN, Martin Joseph (OALR), 632 Frances Building, Sioux City, Iowa.

SABANAS, Alvina Olga (OrS), 2624 West 71st St., Chicago 29, Illinois.

SAMMONS, JR., Lehman Clark (GP), 654 Chelsea Ave., Memphis, Tennessee.

SEMKIN, Dennis Richard (GP), 902 E. Boonville St., Sedalia, Missouri.

SHAPIRO, Harold (OALR), 307 Odd Fellows Building, Bradford, Pa.

SHEARER, Robert John (P), 3418 South 6th Ave., Tucson, Arizona.

SHROFF, John Henry (TS), St. Vincent's Hospital, 3rd & Alvarado, Los Angeles, California.

SHROFF, Phyllis Faye (ANES), VAC, GM&S Hospital, Los Angeles 25, California.

SINNING, John Edward (GP), 415 N. 3rd St., Marshalltown, Iowa.

SORNSON, Rodney Drace (GP), San Manuel Hospital, San Manuel, Arizona.

STOCK, Karl William (OPH), 510 Mills Building, Topeka, Kansas.

STONE, William Samuel (R), 2203 E. McDowell Rd., Phoenix, Arizona.

WADLEIGH, John Russell (GP), 4106 N. Nidito Place, Tucson, Arizona.

METHERELL, Jerry, Maricopa County Gen. Hosp., Phoenix, Arizona.

WEYER, Joseph John (GP), 1235 - 5th Ave., South, Fort Dodge, Iowa.

WHEELER, Clarence Gene (S), 2233 N. Ninth Ave., Phoenix, Arizona.

WHITNEY, Peter Julius (GS), Christian St., White River Junction, Vt.

WIEDERHOLT, Wigbert Christian (I), 2020 E. 93rd St., Cleveland 6, Ohio.

WILLIAMS, JR., Carroll Basil (I), 3992 Van Buren, Ogden, Utah.

WILLIAMS, Kent Dane (S), 26 State Street, Middleport, New York.

WINN, William Alma (I-Pul), Springville, California.

NATIONAL MEDICAL FOUNDATION FOR EYE CARE PLANS AFFILIATION WITH STATE AND REGIONAL OPHTHALMOLOGICAL SOCIETIES

At the annual meeting of National Foundation for Eye Care in Chicago, November 1961, the Foundation's Board of Counselors recommended and its Board of Trustees approved a proposed plan for affiliation of the state and regional Ophthalmological Societies with the Foundation. The action was taken because it was felt there was a growing need for recognition by ophthalmologists on the national scene. All local ophthalmological societies will be offered immediate membership in the organization and the affiliates will not be required to contribute any funds or pro rata shares of its membership dues to the foundation. An annual counselor or counselors will be designated by each ophthalmological society to serve on the Foundation's Board of Counselors. Each affiliated society would determine its own membership requirements and fix its own dues to defray expenses. It is planned that the Board of Counselors would ultimately become a House of Delegates for American Ophthalmology. The

Foundation will provide a model plan and program for any such organization to ophthalmological societies who request it.

A. K. HANSEN, M.D.

FELLOWS OF THE AMERICAN COLLEGE OF SURGEONS

Approximately 1,103 surgeons were inducted October 5 as new Fellows of the American College of Surgeons in ceremonies during the annual five-day Clinical Congress in Chicago.

Those receiving this distinction from the State of Arizona at the 1961 Convocation are:

PHOENIX

George H. Mertz
Herbert N. Munhall
Patrick T. Phalen
Harry F. Steelman
Sheldon Zinn

TUCSON


George S. Banning, Jr.
(Davis-Monthan Air Force Base)
J. Wright Cortner
John W. Magee, Jr.

POST-EZE SYSTEMS ARE AVAILABLE FOR:

- * ACCOUNTS RECEIVABLE
- * ACCOUNTS PAYABLE—PURCHASES
- * ACCOUNTS PAYABLE—CASH DISBURSEMENT



Now, small- and medium-size offices can effect the economies of mechanized accounting *without buying machines or employing specialized operators.*

 **POST-EZE** simplified plans save up to 66% of time, eliminate transcription errors, and keep all records up-to-date and in balance, because: —

ONE writing posts all records
ONE simple proof proves all records

To Learn How you will save up to 66%
(it only takes 10 minutes)

CALL FOR TRAINED REPRESENTATIVE

ALpine 4-6611
3111 N. 29th Avenue
PHOENIX, ARIZONA

MAin 2-2446
604 N. 4th Avenue
TUCSON, ARIZONA



February, 1962

"Dear Doctor:

In your busy night-and-day preoccupation with other people's lives, it is very difficult for you to find time to think about your own future.

Yet face it you must for the sake of your family.

We urge you to join with our many other friends and customers of the medical profession, and arrange for a visit—with your lawyer—to our Trust Department.

Discuss your estate plans in detail. Let an experienced Trust Officer show you how the group-judgment of specialists in the Trust field will insure your estate being handled soundly, economically—and to the letter of your Will.



TRUST DEPARTMENT

Security Building, Phoenix

Resources \$750 Million

**THE HOSPITAL BENEFIT ASSURANCE PLAN
GUARANTEED RENEWABLE
FOR LIFE**



THE H. B. A. LIFE INSURANCE COMPANY
A LEGAL RESERVE LIFE AND DISABILITY CAPITAL STOCK INSURANCE COMPANY
HOME OFFICE: FIRST STREET AT WILLETTA • PHOENIX, ARIZONA • ALpine 8-4888

DUKE R. GASKINS, M.D.
MEDICAL DIRECTOR

February 1, 1962

Dear Doctor:

"I recently performed a radial mastectomy on one of my patients who had HBA Hospital and Surgical coverage. In your surgical schedule, I noticed the allowance for this procedure was \$225.00. Because of complications, I felt it necessary to charge the patient a higher fee and I was wondering. . . ."

This was part of a letter from one of your colleagues that I received recently. Doctor, while we feel the benefits paid for surgical procedures are generous, in no way does it set the physician's fee. We believe that the physician's fee is a personal matter between the doctor and the patient. Our policyholders are instructed that any balance due should be paid by them to the physician directly.

We think that you, like many doctors, will find this procedure very satisfactory.

If you would like a copy of our schedule of benefits for surgical procedures, just drop me a line and I will be happy to see that you receive one.

Sincerely yours,
THE H.B.A. LIFE INSURANCE COMPANY

Duke R. Gaskins, M.D.
Medical Director

Offices in:

**First at Willetta
Phoenix, Arizona
456 N. Country Club Dr.
Mesa, Arizona
31 N. Tucson Blvd.
Tucson, Arizona**

IS IT "VALLEY FEVER" DOCTOR?

FOR INTRADERMAL DIAGNOSES TRY

BioProducts' **NEW** Coccidioidin

PREPARED with nine **9** locally collected and isolated strains of COCCIDIOIDES IMMITIS.

SPECIFICITY in maximum may be expected with BioProducts Coccidioidin, a product of the patients environment.

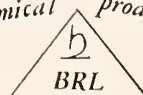
PACKAGED in one cc. vials containing ten tests (0.1 cc. per test) in the standard 1:100 potency. Also available in 1:10; 1:1000; and 1:10,000.

AVAILABLE through your pharmacy or Rocky Mountain Pharmacal, 1002 East Indian School Road, Phoenix, Telephone CRestwood 7-7611.

Your request on your professional letterhead or prescription form to Rocky Mountain Pharmacal will bring complete information and a sample vial.

February, 1962

BIOPRODUCTS RESEARCH LABORATORIES, INC.
biological & biochemical products through research



Phoenix

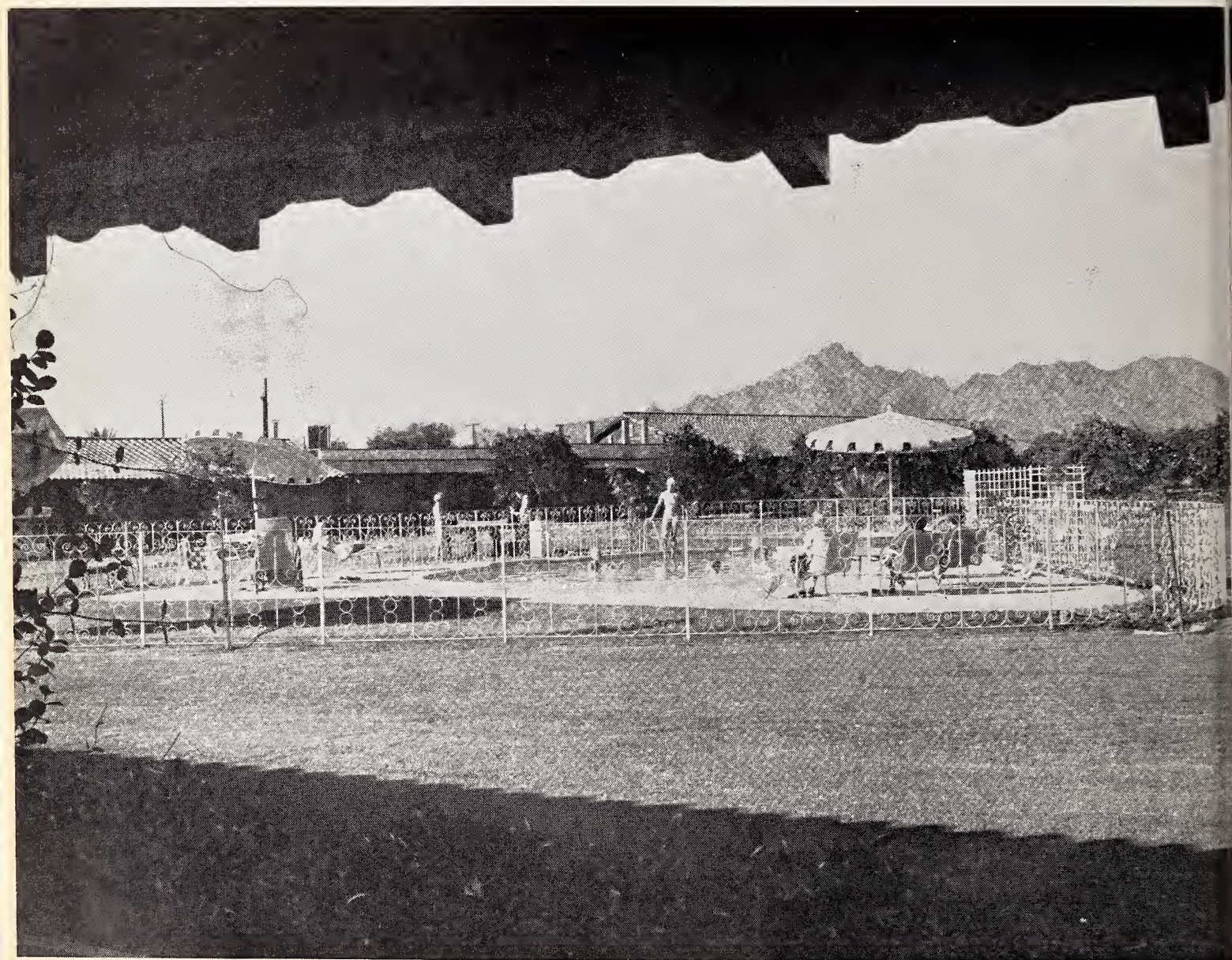
Tucson

75A

Located in the heart of the beautiful Phoenix citrus area near picturesque Camelback Mountain, this hospital is dedicated exclusively to treatment of psychiatric and psychosomatic disorders, including alcoholism.

Facilities include:

- ☆ Spacious, year 'round outdoor recreation area
- ☆ Heated swimming pool
- ☆ Modern, comfortable rooms

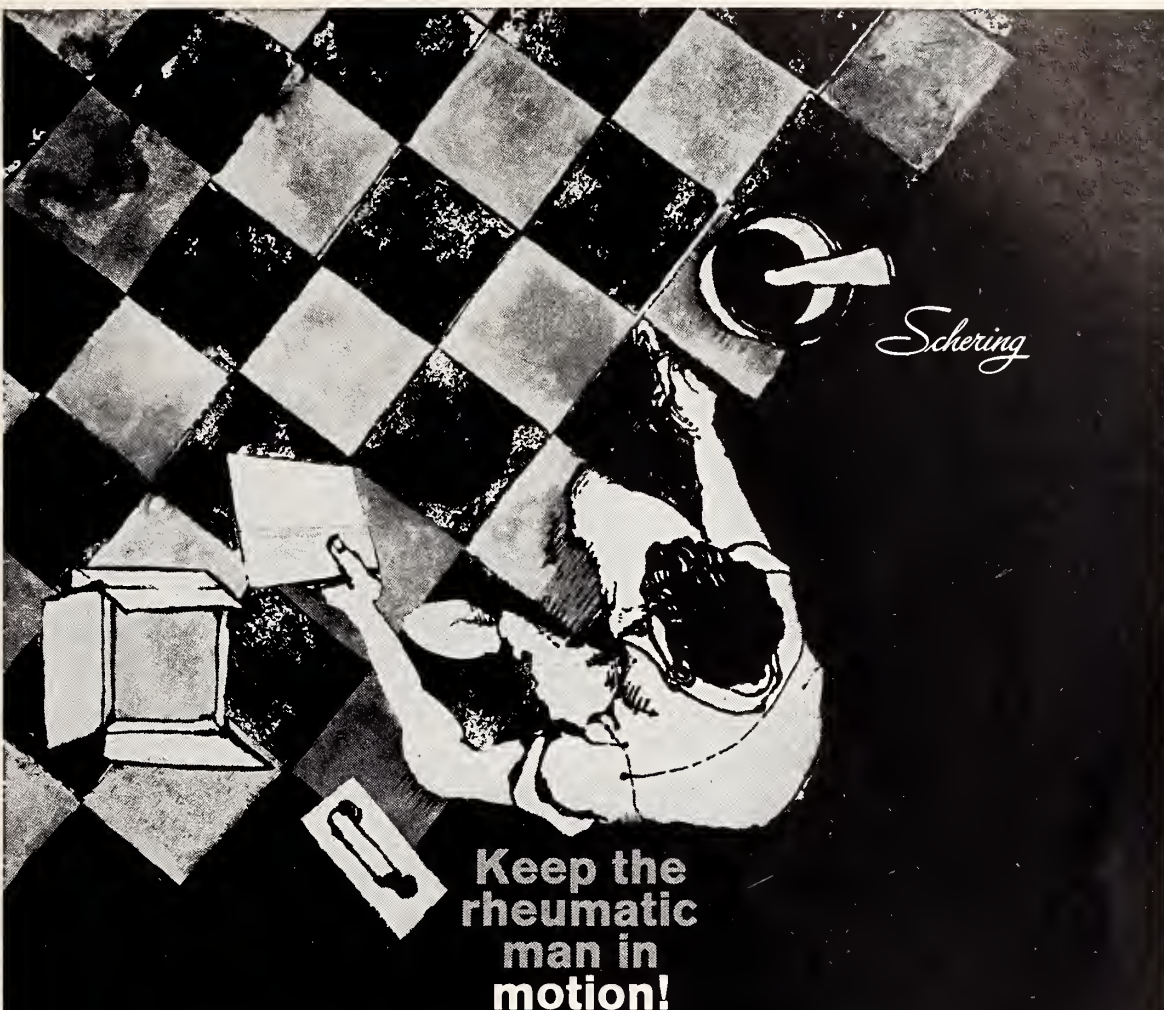


- Open medical staff • 91 bed capacity
- Ratio of more than one registered staff nurse to every two patients
- All rooms air-conditioned • Spacious grounds cover ten acres
- Licensed and approved by Arizona State Department of Health
- Member of:
 - American Hospital Association
 - Arizona Hospital Association
 - Association of Western Hospitals
 - National Association of Private Psychiatric Hospitals
- Approved by:
 - The Joint Commission on Accreditation of Hospitals
 - and The American Psychiatric Association

Camelback Hospital

5055 North 34th Street
AMherst 4-4111
PHOENIX, ARIZONA

OTTO L. BENDHEIM, M.D., F.A.P.A., Medical Director



Keep the rheumatic man in motion!

DELENAR loosens the rheumatic grip on muscles and joints, starts them functioning again—first by a direct relaxant action on skeletal muscle, again by its specific analgesic effects. And, while immediate symptomatic relief restores motion, underlying inflammation is reduced with the low-dosage corticosteroid.

Now you can restore comfortable motion safely, surely with DELENAR in rheumatoid arthritis/traumatic arthritis/early osteoarthritis/spondylitis/fibrositis/myositis/bursitis/tenosynovitis.

Formula:

Orphenadrine HCl	15 mg.	Proved muscle relaxant to relax spasm
Aluminum Aspirin	375 mg.	Fast analgesic relief of motion-stopping pain
Dexamethasone*	0.15 mg.	Low-dosage anti-inflammatory steroid

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J. **Bibliography:** 1. Ernst, E. M.: Pennsylvania M.J. 63:708 (May) 1960. 2. Settel, E.: Clin. Med. 7:1835 (Sept.) 1960.

*DERONIL® brand of dexamethasone

H-415

loosens the rheumatic grip on muscles and joints

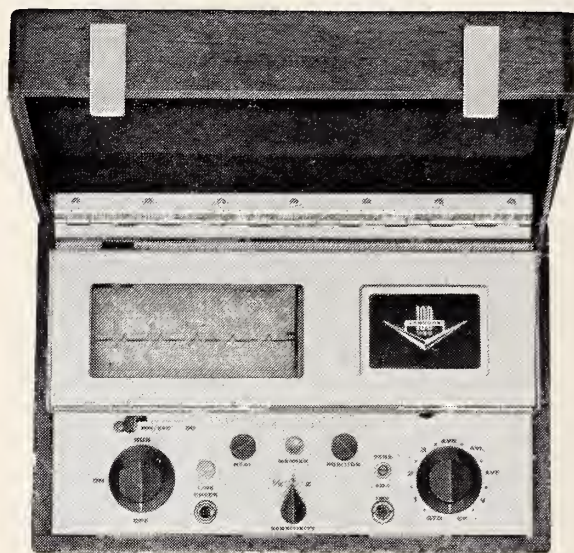
brand of antirheumatic preparation
Delenar®

Depend on it

The inherent accuracy of a Sanborn electrocardiograph recording is something you take for granted—and rightly so. Sanborn ECG's benefit from our continuing work in electrocardiography and over a wide range of medical electronics.

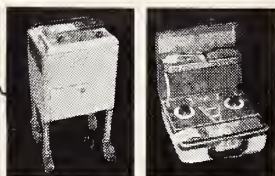
Convenience is also important. That's why there are three Sanborn electrocardiographs, each simple to operate and each designed to meet specific needs. For office, clinic and hospital use there are the 2-speed, 3-sensitivity Model 100 Viso and its mobile counterpart the Model 100M. And for on-call work, the briefcase-size 18-pound Visette is ideal.

Another advantage of owning a Sanborn instrument: you deal with people who know your ECG and value your satisfaction. Our service starts with a no-obligation, 15-day trial of the Sanborn ECG of your choice, and continues as long as you keep the instrument. Contact the nearest Sanborn Branch Office or Service Agency, or write Manager, Clinical Instrument Sales, at the main office.



***...for
characteristic***

Sanborn quality



SANBORN COMPANY
MEDICAL DIVISION Waltham 54, Mass.

PHOENIX Resident Representative 8341 N. 7th St., 943-6917



Calms the Tense, Nervous Patient in anxiety and depression

The outstanding effectiveness and safety with which Miltown calms tension and nervousness has been clinically authenticated by thousands of physicians during the past six years. This, undoubtedly, is one reason why meprobamate is still the most widely prescribed tranquilizer in the world.

Its response is predictable. It will not produce unpleasant surprises for either the patient or the physician. Small wonder that many physicians have awarded Miltown the status of a proven, dependable friend.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS®—400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

 WALLACE LABORATORIES
Cranbury, N. J.

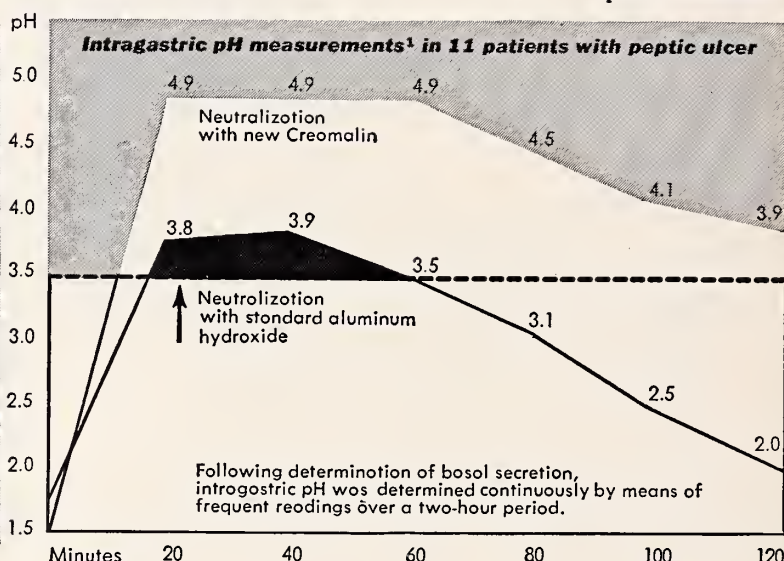
CM-5648

Clinically proven
in over 750
published studies

- 1 Acts dependably —
without causing ataxia or
altering sexual function
- 2 Does not produce
Parkinson-like symptoms,
liver damage or
agranulocytosis
- 3 Does not muddle
the mind or affect
normal behavior

**Acts as well
in people
as in
test tubes**

in vivo
neutralizes
40 to 50 per cent
faster—
twice as long at
pH 3.5 or above



New Creamalin[®]

Antacid Tablets

*Buffers fast¹⁻⁴ for fast relief of pain—
takes up more acid*

*Heals ulcer fast—action more prolonged *in vivo**

*Has superior action of a liquid, with the
convenience of a tablet⁵*

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. New Creamalin tablets are pleasant tasting and smooth, not gritty. They do not cause constipation or electrolyte disturbance.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed.
Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours.

How Supplied: Creamalin Tablets, bottles of 50, 100, 200 and 1000.
Also available: New Creamalin Liquid (1 teaspoon=1 tablet),
bottles of 8 and 16 fl. oz.

References: 1. Schwartz, I. R.: *Current Therap. Res.* 3:29, Feb., 1961.
2. Beekman, S. M.: *J. Am. Pharm. A. (Scient. Ed.)* 49:191, April, 1960.
3. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:381, July, 1959. 4. Data in the files of the Department of Medical Research, Winthrop Laboratories. 5. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:384, July, 1959.

Winthrop

LABORATORIES
New York 18, N.Y.

FOR PEPTIC ULCER • GASTRITIS • GASTRIC HYPERACIDITY

10th Annual Cancer Seminar

MARCH 15-17, 1962
WESTWARD HO HOTEL
PHOENIX, ARIZONA

Program

March 15, 1962:

Thursday Morning

Carcinoma of the Breast

Michael Shimkin, M.D. — National Institutes of Health

Isidor Ravdin, M.D. — University of Pennsylvania

David Wood, M.D. — University of California

Thursday Afternoon

Tumors of Children

Ovar Swenson, M.D. — Tufts College, Boston, Massachusetts

Benjamin, H. Landing, M.D. — Children's Hospital Society, Los Angeles, Calif.

Friday Morning

March 16, 1962:

Skin Tumors

Herbert Z. Lund, M.D. — Moses H. Cone Memorial Hospital, Greensboro, North Carolina

Friday Afternoon

Research

Roland K. Robins, Ph.D. — Arizona State University

Arthur Vorwald, M.D. — Wayne University

Bertel Bjorklund, M.D. — Stockholm, Sweden

Saturday, March 17, 1962:

Saturday Morning

March 17, 1962:

Perfusion

Donald Rochlin, M.D. — U.C.L.A.

Edward Kremetz — Tulane

Herbert C. Lund, M.D. — Greensboro, North Carolina

Discussion

THE ARIZONA MEDICAL ASSOCIATION, INC.

71st ANNUAL MEETING

THEME — PUBLIC HEALTH

April 25 through 29, 1962

Safari Hotel — Scottsdale, Arizona

Tentative Program

Wednesday, April 25, 1962

7:30 a.m.	Breakfast — Board of Directors Meeting
12:00 Noon	Lunchcon — Board of Directors
1:00 p.m.	House of Delegates — First Regular Session
3:00 p.m.	Blue Shield Annual Corporation Meeting
6:30 p.m.	Reception
7:30 p.m.	Chuckwagon Dinner

February, 1962

81A

Meetings

Thursday, April 26, 1962

- 7:30 a.m. Breakfast
- 8:00 a.m. Breakfast Panel Discussion — "Public Health"
Lloyd M. Famer, M.D., Stanford F. Farnsworth, M.D.
- 9:30 a.m. Intermission — Visit Exhibits
- 9:45 a.m. Obstetrical Difficulties, Dr. Parks
- 10:15 a.m. General Session
- 11:45 a.m. Intermission — Visit Exhibits — Attendance Award
- 12:00 Noon Psychiatric Aspects of Pediatrics, Richard Koch, M.D.
- 1:00 p.m. Specialty Society Luncheons

Friday, April 27, 1962

- 7:30 a.m. Breakfast
- 8:00 a.m. Breakfast Panel Discussion — "Fetal and Infant Salvage"
- 9:15 a.m. Intermission — Visit Exhibits
- 9:30 a.m. Congenital Defects
- 10:00 a.m. Drug Reactions, William Sherman, M.D.
- 10:30 a.m. Anemia, Stephen O. Schwartz, M.D.
- 11:00 a.m. Intermission — Visit Exhibits — Attendance Award
- 11:15 a.m. Annual Award Paper
- 11:45 a.m. Cardiovascular Surgery, Henry T. Bahnson, M.D.
- 12:15 p.m. Obstetrical Anesthesia, Peere C. Lund, M.D.
- 1:00 p.m. Specialty Society Luncheons
- 3:00 p.m. House of Delegates — Second Regular Session
- 6:30 p.m. President's Reception
- 8:00 p.m. President's Dinner Dance

Saturday, April 28, 1962

- 9:00 a.m. Asthma, William Sherman, M.D.
- 9:30 a.m. Etiology of Leukemia, Stephen O. Schwartz, M.D.
- 10:00 a.m. Ulcerative Colitis, Richard Koch, M.D.
- 10:30 a.m. Anesthesia, Peere C. Lund, M.D.
- 11:00 a.m. Intermission — Visit Exhibits — Attendance Award
- 11:15 a.m. Thoracic Surgery, Henry Bahnson, M.D.
- 11:45 a.m. Obstetrics and Gynecology, Dr. Parks
- 12:15 p.m. Orthopedics
- 1:15 p.m. Conclusion

FOURTEENTH ANNUAL MEETING SOUTHWESTERN SURGICAL CONGRESS

April 2-5, 1962
Western Skies Hotel
Albuquerque, New Mexico

SIXTEENTH ANNUAL SYMPOSIUM ON FUNDAMENTAL RESEARCH

CONCEPTUAL ADVANCES IN
IMMUNOLOGY AND ONCOLOGY
March 1-3, 1962
M. D. Anderson Hospital
Houston, Texas

REGIONAL MEETINGS

Late Winter and Spring, 1962

February 20-23, 1962

Colorado State Medical Society
Midwinter Clinical Session
Denver, Colorado

February 26-28, 1962

Denver Obstetrics and Gynecology
Society Meeting
Denver, Colorado

March 1-3, 1962

University of Utah College of Medicine
Postgraduate Course — Obstetrics
Salt Lake City, Utah

March 15-17, 1962

Tenth Annual Cancer Seminar
Arizona Division
American Cancer Society
Phoenix, Arizona

March 26-June 7, 1962

Colorado University Medical School
Postgraduate Course — Surgical Anatomy
Denver, Colorado

April 2-5, 1962

Southwestern Surgical Congress
Albuquerque, New Mexico

April 6-13, 1962

American Academy General Practice
Annual Meeting
Las Vegas, Nevada

April 25-28, 1962

Arizona Medical Association
Scottsdale, Arizona

April 27-28, 1962

Western Colorado Spring Clinic
Grand Junction, Colorado

May 9-10, 1962

Weld County Medical and Surgical Clinics
Greeley, Colorado

May 9-11, 1962

New Mexico Medical Society Annual Meeting
Hobbs, New Mexico

May 14-16, 1962

Fitzsimmons General Hospital MEND
(Medical Education for National Defense)
Symposium
Denver, Colorado

May 29-June 2, 1962

Colorado University Medical School and
Colorado Heart Association 10th Annual
Western Cardiac Conference and American
College of Cardiology
Denver, Colorado

June 27-30, 1962

Idaho State Medical Association
Sun Valley, Idaho

RECIRCULATED AIR

Recirculation of air in hospital operating rooms is safe — lifting of the general rule against it would save hospitals thousands of dollars.

In a recent study at Barnes Hospital, researchers found that recirculated air is just as safe as fresh outside air, and considerably less expensive to provide.

*Hospitals, Journal of the American
Hospital Association, November 1, 1961*

The cigarette that made the Filter Famous!



It's true. Kent's enormous rise in popularity—with all the attendant magazine and newspaper stories—really put momentum to the trend toward filter cigarettes!

So, Kent is the cigarette that made the filter famous. And, no wonder. Kent's famous Micronite filter is made from a pure, all-vegetable material. A specially designed process at the P. Lorillard factory compresses this material into the filter shape and creates an intricate network of tiny channels which refine smoking flavor.

Kent with the Micronite filter refines away harsh flavor . . . refines away hot taste . . . makes the taste of a cigarette mild.

That's why you'll feel better about smoking with the taste of Kent.

© 1961 P. LORILLARD CO.

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

LABORATORIES

THE DIAGNOSTIC LABORATORY

*Complete Medical Laboratory Service, X-Ray Diagnosis
Radiation Therapy, Radioactive Isotopes*



DEPARTMENT OF PATHOLOGY

MAURICE ROSENTHAL, M.D.
GEORGE SCHARF, M.D.
SEYMOUR B. SILVERMAN, M.D.
BLAND GIDDINGS, M.D.

DEPARTMENT OF RADIOLOGY

MARCY L. SUSSMAN, M.D.
E. LAWRENCE GANTER, M.D.

Diplomates of the American Boards of PATHOLOGY and RADIOLOGY

1130 E. McDowell Rd.

Phoenix, Arizona

Phone AL 8-1601

Information, Price Lists and Mailing Containers upon request.

Medical Center X-Ray and Clinical Laboratory

1313 North 2nd Street
Phoenix, Arizona
Phone ALpine 8-3484

AND

Professional X-Ray and Clinical Laboratory

510 Professional Bldg.
Phoenix, Arizona
Phone ALpine 3-4105

DIAGNOSTIC X-RAY

X-RAY THERAPY

RADIUM THERAPY

CLINICAL PATHOLOGY

TISSUE PATHOLOGY

ELECTROCARDIOGRAPHY

BASAL METABOLISM

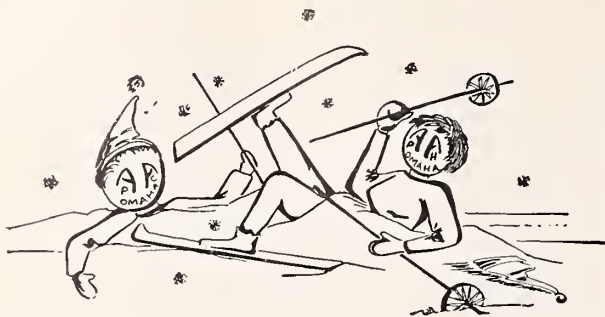
R. Lee Foster, M.D., F.A.C.R., F.A.C.P., Director

Martin L. List, M.D., Radiologist

George A. Gentner, M.D., Radiologist

Diplomates of American Board of Radiology

Lorel A. Stapley, M.D., Consultant Pathologist



Protection Against Loss Of Income From
Accident & Sickness As Well As Hospital
Expense Benefits For You And All Your
Eligible Dependents.



**PHYSICIANS CASUALTY & HEALTH
ASSOCIATIONS**
OMAHA 31, NEBRASKA

Since 1902
Handsome Professional Appointment Book
sent to you FREE upon request.

**Serving Arizona
Health Needs
Since 1908**

**Ryan-Evans
DRUG STORES**

Phoenix - Tucson - Scottsdale - Maryvale

Glendale - Sunnyslope - Tempe - Globe

Casa Grande - Miami - Wickenburg

paf

**DOUCHE
POWDER**

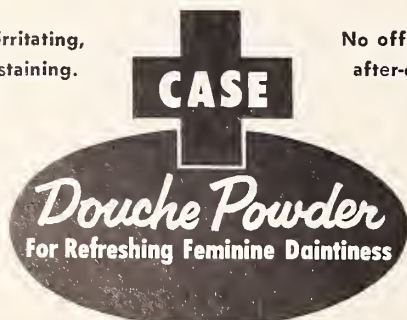
Buffered to control a
normal vaginal pH.

P.A.F.'s low surface ten-
sion increases penetra-
tion into the vaginal
rugae and dissolution of
organisms including tri-
chomonas and fungus.

P.A.F.'s high surface activity liquifies viscus
mucus on vaginal mucosa, releasing accumu-
lated debris in the vaginal tract.

Non-irritating,
non-staining.

No offensive
after-odor.



G. M. Case Laboratories — San Diego, Calif.

**HOBBY HORSE
RANCH SCHOOL**

A School For Exceptional Children

The Hobby Horse Ranch School is both home
and school for a small group of children. It
welcomes the child who is mentally retarded
and physically handicapped as well as the
backward child who suffers no physical handi-
cap.

The Hobby Horse Ranch School is a branch
of Fairview School in Fishkill, New York which
was established in 1936.

Directors: Blanche C. Lightowler, B.A.
Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.

PHARMACY DIRECTORY

Your Prescription Store

DIERDORF PHARMACY

Phone BR 5-5212

2315 N. 24th St. Phoenix, Arizona

Milburn F. Dierdorf

In Scottsdale call
Lute's Scottsdale Pharmacy

For

PRESCRIPTIONS

WH 5-8420 — WH 5-8429

Next to the 1st National Bank

SRUTWA PHARMACIES, INC.

WH 5-3791

Scottsdale Medical Center

218 E. Stetson Drive

Scottsdale, Arizona

DISTRICT NO. 1

ARIZONA STATE NURSES ASS'N.

MRS. MARJORIE E. KASUN, R.N.

Registrar

Nurses' Professional Registry

703 Professional Bldg. — Phoenix — AL 4-4151

DOCTORS' CENTRAL DIRECTORY

Helen M. Barrasso, R.N., Director

For Emergencies or in Absence of Your Doctor

CALL EA 7-7471

At Your Service 24 Hours Daily

3029 E. 2nd St.

Tucson, Arizona

"Established 1932"

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR
CONDITIONING FOR YEAR ROUND COMFORT

The Franklin Hospital

Hospital License No. 71

Registered A.M.A.

Member A.H.A.

367 No. 21st Avenue

PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751

HILLCREST MEDICAL CENTER, INC.

Established 1921

- General Medical
- Orthopedic
- Acute or Chronic
- Post-Operative
- Geriatric
- Convalescent
- Non-Sectarian
- Medical Doctor of your choice

LISTED by American Hospital Association

24 Hr. Professional Nursing — R.N.'s on all shifts.

Phone: MA 3-7591

1501 N. 3rd Ave.

Tucson, Arizona

Alberta M. Lovett, President

Charles H. Schmid, Treasurer

Katharine C. Schmid, Director, Admission-Patient Services

BUTLERS REST HOME

• Bed Patients and Chronics

- Television
- 24 Hour Nursing Care
- Excellent Food
- State Licensed

802 N. 7th St.

Phoenix, Arizona

Telephone AL 3-2592

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy
American College of Chest Physicians
15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
Fellow, American College of Allergists
Fellow, American Academy of Allergy

31 W. Camelback Road CR 7-3337
Phoenix, Arizona

Pediatric Allergy

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists

322 W. McDowell Rd. PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY

Diplomate of American Board of
Dermatology and Syphilology

Phone Alpine 3-5264
105 W. McDowell Road Phoenix, Arizona

WILLIAM SNYDER, M.D.

Diplomate of the American Board of Dermatology
Diseases of the Skin
Skin Cancer — Cutaneous Allergy
2021 N. Central Ave. — ALpine 3-8383
PHOENIX, ARIZONA

GYNECOLOGY & ENDOCRINOLOGY

JOSEPH B. RADDIN, M.D.

Practice limited to
MEDICAL GYNECOLOGY & ENDOCRINOLOGY
706 Professional Building
15. E. Monroe — Phoenix, Arizona
Phone ALpine 2-3577

MALIGNANT DISEASE

JAMES M. OVENS, M.D.

F.A.C.S .F.I.C.S.

Diplomate American Board of Surgery

Cancer and Tumor Surgery

X-ray and Radium Therapy

333 W. Thomas Road Phone 279-7301

Phoenix 13, Arizona

A. L. LINDBERG, M.D.

Neoplastic Diseases
Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona

Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D., F.A.C.S.* — A. L. Swenson, M.D.,
F.A.C.S.* — Ray Fife, M.D., F.A.C.S.* — Sidney L. Stovall, M.D.,
F.A.C.S.* — Thomas H. Taber, Jr., M.D., F.A.C.S.*
Robert A. Johnson, M.D.

*Diplomates of the American Board of Orthopedic Surgery.

2620 No. 3rd Street — Phoenix, Arizona — CR 7-6211

PHYSICIANS' DIRECTORY

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S

Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

PROCTOLOGY

WALLACE M. MEYER, M.D.

PROCTOLOGY
Park Central Medical Bldg.
Phone CR 4-5632
550 W. Thomas Road — 216 Patio B
Phoenix, Arizona

JAMES T. JENKINS, M.D.

Fellow American Proctologic Society
Fellow American College of Surgeons
Fellow International College of Surgeons
Practice Limited to Diseases of the Anus, Rectum
and Colon
2021 N. Central Ave.
Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

CARL BREITNER, M.D.

Psychiatry
AL 2-9108
1515 N. 9th St. Phoenix, Arizona

LEO RUBINOW, M.D.

PSYCHIATRY
AM 6-0630
224 E. Thomas Rd. Phoenix, Arizona

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.

SPEECH PATHOLOGIST
Advanced Member
American Speech and Hearing Association
Diagnoses Speech and Swallowing Therapy
240 W. Osborn Rd. Phone AM 5-0071
Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P. MARTIN L. LIST, M.D., GEORGE A. GENTNER, M.D.

Diplomates of American Board of Radiology
Diagnostic Roentgenology, X-Ray and Radium Therapy
510 Professional Bldg. 1313 N. Second St.
Phone ALpine 3-4105 Phone ALpine 8-3484
Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.

Diplomate of American Board of Radiology

E. LAWRENCE GANTER, M.D.

Diplomate of American Board of Radiology
DIAGNOSTIC RADIOLOGY
THERAPEUTIC RADIOLOGY
RADIOISOTOPES
1130 E. McDowell Rr.
Telephone ALpine 8-1601 Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.

123 South Stone Avenue
Tucson, Arizona
Office Phone MA 2-3371 Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.

GENERAL SURGERY
Certified by the American Board of Surgery
550 W. Thomas Road
Phone CRestwood 4-2081
Phoenix, Arizona

INDEX TO ADVERTISERS

- Abbott Laboratories...9A, 10A, 26A, 27A, 45A, 46A
 Ames Co., Inc.Inside Back Cover
- Breon Laboratories, Inc.48A
 Bristol Laboratories4A, 5A
 Brown Pharmaceutical Co.57A
 Burroughs-Wellcome Co., Inc.11A, 58A, 59A
 Butlers Rest Home87A
- Camelback Hospital76A
 Camelback Professional Building25A
 Case, G. M. Laboratories, Inc.86A
 Crystal Bottled Waters42A
- Doctors Directory87A
- Franklin Hospital87A
- Hillcrest Medical Center87A
 Hobby Horse Ranch School86A
 H.B.A. Life Insurance Co.74A
- Lederle Laboratories50A, 51A, 62A
 Leeming, Thos. & Co., Inc.12A
 Lilly, Eli & Co.Front Cover, 34A
 Loftins Business Forms73A
 Lorillard, P. & Co.84A
- MacAlpine Drugs25A
- National Casualty Co.40A
 Nurses Directory87A
- Organon, Inc.52A
- Parke-Davis & Co.Inside Front Cover, 1A
 PBSW Supply Company90A
 Pfizer Laboratories38A, 39A, 40A, 63A, 64A
 Pharmacy Directory87A
 Physician's Casualty Assn.86A
- Robins, A. H. & Co., Inc.....31A, 35A, 36A, 37A
 Roche LaboratoriesBack Cover
 Rocky Mountain Pharmaceutical Co.75A
 Roerig, J. B. & Co.41A
 Ryan Evans Drugs86A
- Sanborn & Co.78A
 Sardeau & Co.49A
 Saunders, W. B. & Co.7A
 Schering Corp.33A, 77A
 Searle, G. D. & Co.30A
 Squibb, E. R. & Sons Co.28A, 29A
- Upjohn, The Co.42A, 43A
- Valley National Bank73A
- Wallace Laboratories32A, 79A
 Wayland Drugs25A
 White Angel Inn60A
 Winthrop Laboratories2A, 44A, 61A, 80A

JUST WHAT THE DOCTOR ORDERED . . .



INSTANT COPY PAPER

for use on your Thermo-fax machine

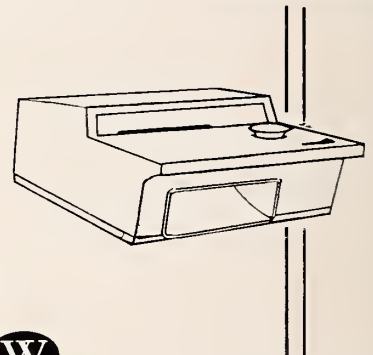
The new Copy Paper to give you:

SHARP COPIES . . . every period shows up!

TEAR-RESISTANT . . . durable, won't become brittle!

LONG-LASTING COPIES . . . Always fresh, fade resistant!

See For Yourself! Use It!



PBSW

OFFICE EQUIPMENT CENTER

801 W. INDIAN SCHOOL RD. • PHOENIX, ARIZ.

AM 4-4141

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE



UNITED STATES AND MEXICO

Volume 19

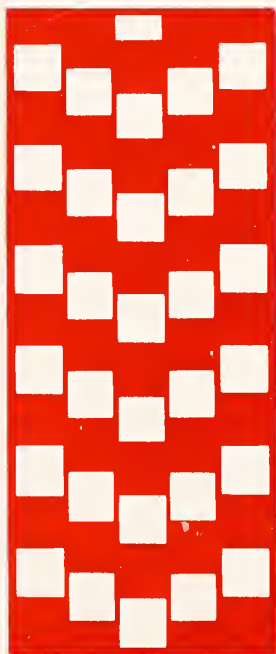
Number 3

March, 1962

U.C. MEDICAL CENTER LIBRARY

MAR 26 1962

San Francisco, 22



can parallel lines diverge?

Though the vertical lines *appear* to bow out at the bottom, the fact remains . . . they are parallel. Similarly, when facts regarding oral penicillins are rearranged, they may distort the true picture. Low price and high "blood levels" are important considerations, but it's what a drug *does* that counts.

V-Cillin K® achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.¹ Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food*. Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

For consistently dependable clinical results

prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

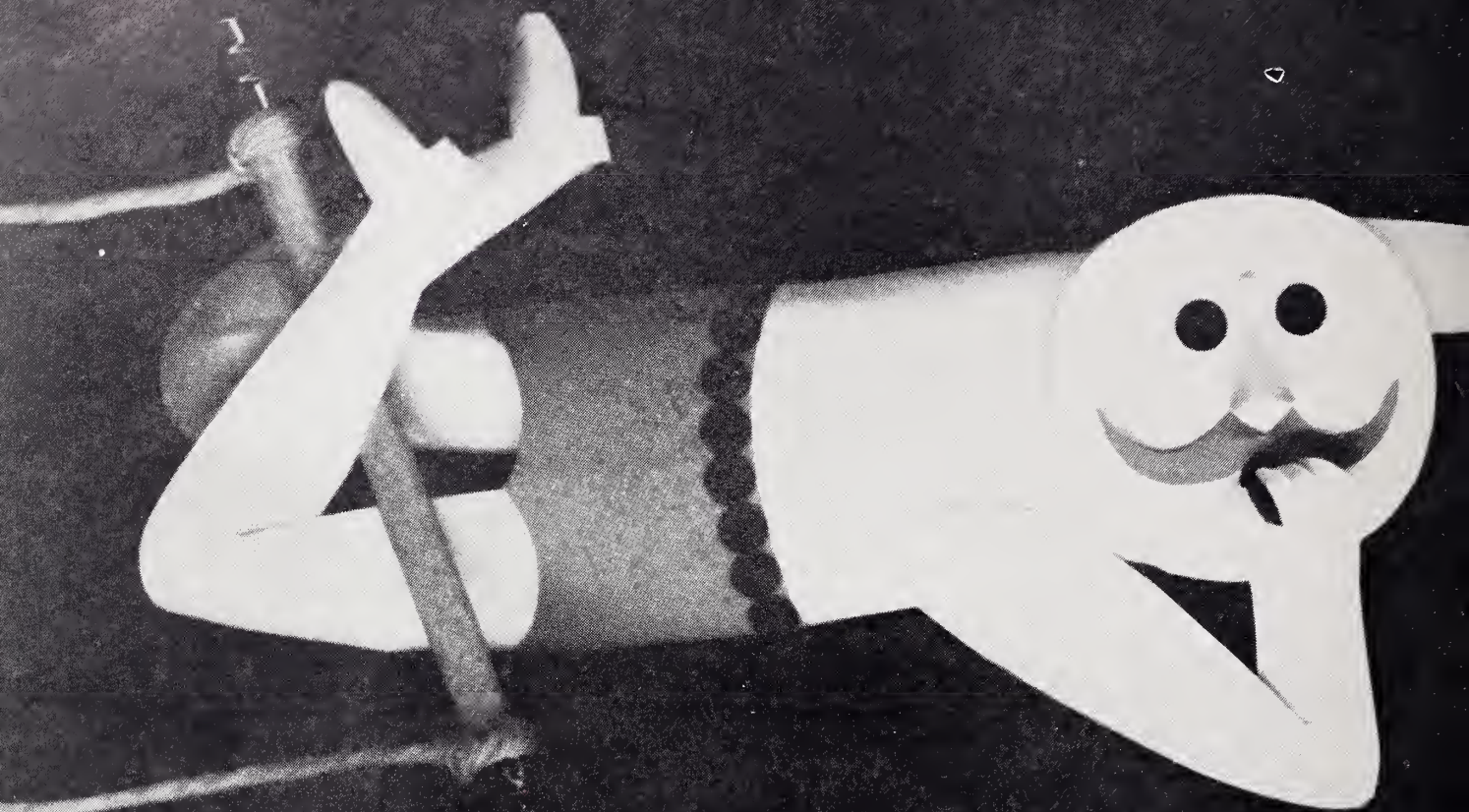
V-Cillin K® (penicillin V potassium, Lilly)

1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.



233221



**when the perfect combination
is threatened by a cough..**



Benylin[®] Expectorant

**provides the right combination
for effective cough control**

Your patient probably has a more "down-to-earth" occupation than the trapeze artist, but persistent coughing can cause a comparable drop in performance. Not so when you prescribe BENYLIN EXPECTORANT. This outstanding antitussive preparation effectively suppresses coughs due to colds or allergy through its combination of judiciously selected ingredients. Benadryl,[®] a potent antihistaminic-antispasmodic, calms the cough reflex, relieves bronchial spasm, and reduces nasal

stuffiness, sneezing, lacrimation, other symptoms associated with colds, and coughs of allergic origin. Efficient expectorants break down tenacious mucous secretions, thereby relieving respiratory congestion. And the pleasant-tasting, raspberry-flavored syrup provides a soothing demulcent action that eases irritated throat membranes.

BENYLIN EXPECTORANT contains in each fluidounce:
Benadryl[®] hydrochloride (diphenhydramine hydrochloride, Parke-Davis) 80 mg.
Ammonium chloride 12 gr.
Sodium citrate 5 gr.
Chloroform 2 gr.
Menthol 0.1 gr.
Alcohol 5%

Supplied: BENYLIN EXPECTORANT is available in 16-ounce and 1-gallon bottles. This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

PARKE-DAVIS

84762 PARKE, DAVIS & COMPANY, Detroit 32, Michigan

When it's more like "grippe" or "flu" than a simple cold, but an antibiotic is not indicated... prescribe NEW WIN-CODIN* Tablets



Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

Winthrop LABORATORIES
New York 18, N. Y.

New Win-Codin tablets provide greater symptomatic relief from influenza, colds and sinusitis than do simple analgesic-antihistamine combinations. New Win-Codin tablets contain a full complement of the most effective agents available to relieve general discomfort, bring down fever and lessen congestive symptoms.

Each tablet contains:

Codeine phosphate 15 mg.—to relieve local and generalized pain and control dry cough

Neo-Synephrine® 10 mg.—to shrink nasal membranes and open sinus ostia

Acetylsalicylic acid 300 mg. (5 grains)—to reduce fever and relieve aching

Chlorpheniramine maleate 2 mg.—an antihistamine to shrink engorged membranes and lessen rhinorrhea

Ascorbic acid (vitamin C) 50 mg.—to increase resistance to infections†

New Win-Codin tablets will bring more comfort to many patients suffering from severe colds, influenza or sinusitis.

Average dose: Adults, 1 or 2 tablets three times daily; children 6 to 12 years, from ½ to 1 tablet three times daily.

Available in bottles of 100 (Class B narcotic).

*Trademark †For persons with vitamin C deficiency
Neo-Synephrine (brand of phenylephrine), trademark reg. U. S. Pat. Off.

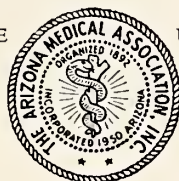
10-110

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

March, 1962



Vol. 19, No. 3

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

BOARD OF DIRECTORS MEETING — Minutes — Dec. 10, 1961	17A
MEDICAL ECONOMICS COMMITTEE MEETING — Minutes — Dec. 7, 1961	31A

ORIGINAL ARTICLES

MIDDLE AGED FITNESS	43
Paul Dudley White, M.D.	
LITHOPEDIAN — UNDETECTED FOR FOURTEEN YEARS — Report of a Case.....	49
Joseph B. Buxer, M.D., Stanley A. Smith, M.D., Robert C. Evans, M.D.	
ARTHROPOD-BORNE VIRAL ENCEPHALITIDES	52
V. H. Ueckert, D.V.M., Stanford F. Farnsworth, M.D.	
NON-MILITARY CBR DEFENSE	56
John W. Walsh, M.D.	

SECTION ON ROENTGENOLOGY

EROSIVE ('PEPTIC') ESOPHAGITIS	61
Theodore O. Alexander, M.D.	

PRESIDENT'S PAGE

YOUR IMMEDIATE DUTY	49A
Leslie B. Smith, M.D.	

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

PRESIDENTIAL ADDRESS	57A
Juan E. Fonseca, M.D.	
DISCURSO PRESIDENCIAL	57A
Juan E. Fonseca, M.D.	

EDITORIALS

QUESTIONING THE PSYCHIATRIST ABOUT INSANITY	71A
CORPORATE PRACTICE OF MEDICINE	73A
EDITORS NOTES	74A

FUTURE MEDICAL MEETINGS AND POSTGRADUATE EDUCATION

ARMA — PROGRAM 71st ANNUAL MEETING	76A
10TH ANNUAL CANCER SEMINAR	80A
THE SOUTHWESTERN SURGICAL CONGRESS FOURTEENTH ANNUAL MEETING	81A
REGIONAL MEETINGS, SPRING AND SUMMER, 1962	81A
THE ANNUAL MEETING OF ARIZONA TUBERCULOSIS AND HEALTH ASSOCIATION, INC. AND ARIZONA THORACIC SOCIETY	82A
ATHA - ATS BANQUET	82A

DIRECTORY

OFFICERS AND COMMITTEES	5A
SOCIEDAD MEDICA D ESTADOS UNIDOS DE NORTE AMERICA & MEXICO.....	7A
MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO	7A
WOMAN'S AUXILIARY	7A
INDEX TO ADVERTISERS	94A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription \$5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.



Imagine your Convalescence in this Picture

Note the Executone Intercom to the Nurses Station; for your Radio or T.V. for your Instant Attention; Living Room Decor with pull down Reading Lamps and Modern Lounge Furniture; Private Phone; Bright but Soft Color combinations with cheerful window drapes.

**AROUND THE CLOCK REGISTERED NURSE SERVICE
ADMISSION BY REFERRAL OF YOUR DOCTOR OF MEDICINE**

COST? – A modest \$14.00 per day is the starting rate.

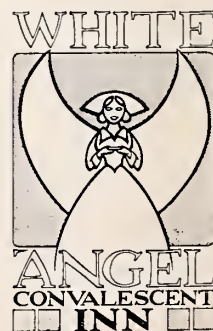
Phone or Write

WHITE ANGEL INN

277-6651

1845 East Thomas Road

Phoenix, Arizona



Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.
Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Leslie B. Smith, M.D.President
1130 E. McDowell Rd., Phoenix, Arizona
Clarence E. Yount, Jr., M.D.President-elect
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D.Vice President
116 N. Tucson Blvd., Tucson, Arizona
Paul L. Singer, M.D.Secretary
1313 N. Second Street, Phoenix, Arizona
Arthur V. Dudley, Jr., M.D.Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D.Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D.Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D.Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Orin J. Farness, M.D.Alternate Delegate to AMA
1535 N. Tucson Blvd., Tucson, Arizona
Dermont W. Melick, M.D.Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D.Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D.Central District
710 Professional Bldg., Phoenix, Arizona
W. Albert Brewer, M.D.Central District
1116 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D.Central District
926 E. McDowell Rd., Phoenix, Arizona
Wallace A. Reed, M.D.Central District
2021 N. Central Ave., Phoenix, Arizona
Noel G. Smith, M.D.Central District
3614 N. 15th Ave., Phoenix, Arizona
Leo L. Tuveson, M.D.Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D.Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D.Northwestern District
434 West Gurley Street, Prescott, Arizona
D. G. Moody, M.D.Southeastern District
101 Terrace Street, Nogales, Arizona
Earl R. Baldwin, M.D.Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D.Southern District
1613 N. Tucson Blvd., Tucson, Arizona
John R. Schwartzmann, M.D.Southern District
2415 E. Adams Street, Tucson, Arizona
James T. O'Neil, M.D.Southwestern District
113 West 2nd Street, Casa Grande, Arizona

DIRECTOR AT LARGE

Lindsay E. Beaton, M.D.Past President
1650 N. Campbell Ave., Tucson, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1962

APACHE: DeArmond Lindes, M.D., President, Box 272, Eagar;
Jerry T. Clifton, M.D., Secretary, General Delivery, Box
758, Showlow.
COCHISE: James S. Walsh, M.D., President, 631 Ninth St.,
Douglas; Harry C. Smith, M.D., Secretary, 910 Ninth St.,
Douglas.
COCONINO: John H. Caskey, M.D., President, 2725 E. Lakin
Drive, Flagstaff; J. Garland Wood, Jr., M.D., Secretary,
1215 N. Beaver Street, Flagstaff.
GILA: Theodore C. Harper, M.D., President, 703 Ash Street,
Globe; Thomas F. Moore, M.D., Secretary, Box 1207, Miami.
GRAHAM: Bruce N. Curtis, M.D., President, 618 Central Avenue,
Safford; Thomas W. Jensen, M.D., Secretary, 626 Sixth
Avenue, Safford.
GREENLEE: Hugh LaMaster, M.D., President, Box 1597, Clifton;
Howard W. Thomas, M.D., Secretary, Morenci Hospital,
Morenci.
MARICOPA: Jack E. Brooks, M.D., President, 2021 North Central
Avenue, Phoenix; Howard C. Lawrence, M.D., Secretary,
2021 N. Central Ave., Phoenix.
(Society Office — 2025 N. Central Ave., Phoenix)
MOHAVE: Walter Brazie, M.D., President, Masonic Building,
Kingman; John J. Standifer, M.D., Secretary, 412 E. Oak
St., Kingman.
NAVAJO: Leo L. Lewis, M.D., President, 101 S. Williamson St.,
Winslow; Theodore L. Lothman, M.D., Secretary, Box 397,
Holbrook.
PIMA: Delmer J. Heim, M.D., President, 116 N. Tucson Blvd.,
Tucson; Elliott E. Stearns, Jr., M.D., Secretary, 2442 E.
Elm St., Tucson.
(Society Office — 57 East Jackson St., Tucson)
PINAL: Glen H. Walker, M.D., President, 291 W. Wilson Ave.,
Coolidge; James H. Boyd, M.D., Secretary, 291 W. Wilson
Ave., Coolidge.
SANTA CRUZ: Zenas B. Noon, M.D., President, Gebler Bldg.,
Nogales; Charles S. Smith, M.D., Secretary, Gebler Building,
Nogales.
YAVAPAI: Albert O. Daniels, M.D., Box 1311, Prescott; William
R. Shepard, M.D., Secretary, 506 W. Gurley St., Prescott.
YUMA: Abe I. Podolsky, M.D., President, 1601 Fifth Ave.,
Yuma; Ellis V. Browning, M.D., Secretary, 407 16th Street,
Yuma.

COMMITTEES — 1961-62

NOTE: The President, President-elect and Secretary are ex-officio members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE: Paul B. Jarrett, M.D., Chairman (Phoenix); Walter Brazie M.D. (Kingman); Frank A. Shellenberger, Jr., M.D. (Tucson); Paul M. Singer, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Donald K. Buffnirre, M.D., Chairman (Phoenix); Preston T. Brown, M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Carl H. Gans, M.D. (Morenci); Roland V. Murphy, M.D. (Tucson); Paul L. Singer, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Arthur V. Dudley, Jr., M.D., Chairman (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson).

EXECUTIVE COMMITTEE: Leslie B. Smith, M.D., President, Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Lindsay E. Beaton, M.D., Past-President, Chairman (Tucson); Carlos C. Craig, M.D. (Phoenix); Francis M. Findlay, M.D. (San Manuel); John F. Stanley, M.D. (Yuma); Oscar W. Thoeny, M.D. (Phoenix); Hugh C. Thompson, Jr., M.D. (Tucson); Florence B. Yount, M.D. (Prescott).

HISTORY & OBITUARIES COMMITTEE: John W. Kennedy, M.D., Chairman (Phoenix); Harold W. Kohl, M.D., (Tucson); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podolsky, M.D. (Yuma); Howell S. Randolph, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: John H. Ricker, M.D., Chairman (Phoenix); John F. Currin, M.D. (Flagstaff); Juan E. Fonseca, M.D. (Tucson); Oscar W. Friske, M.D. (Ajo); Charles P. Neumann, M.D. (Tucson); Robert W. Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Co-Chairman (Phoenix); MacDonald Wood, M.D., Co-Chairman (Phoenix); Derrill B. Manley, M.D. (Phoenix); John S. Carlson, M.D. (Nogales); Ben P. Frissell, M.D. (Phoenix); Paul B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); William B. Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D., Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix); Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: W. Albert Brewer, M.D., Chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: Wallace A. Reed, M.D., Chairman (Phoenix); Jack E. Brooks, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson); Maurice Rosenthal, M.D. (Phoenix); George A. Spikes, M.D. (Douglas).

PROCUREMENT & ASSIGNMENT COMMITTEE: Joseph M. Greer, M.D., Chairman (Phoenix); Robert N. Class, M.D. (Tucson); John F. Currin, M.D. (Flagstaff); Ruland W. Husong, M.D. (Phoenix); Robert M. Matts, M.D. (Yuma); Joseph P. McNally, M.D. (Prescott).

PROFESSIONAL COMMITTEE: Robert B. Leonard, M.D., Chairman (Phoenix); James D. Alway, M.D. (Phoenix); Otto L. Bendheim, M.D. (Phoenix); W. Albert Brewer, M.D. (Phoenix); Orin J. Farness, M.D. (Tucson); Ray Fife, M.D. (Phoenix); Richard B. Johns, M.D. (Phoenix); Earl J. Baker, M.D. (Phoenix); Henry P. Limbacher, M.D. (Tucson); George G. McKhann, M.D. (Phoenix); Herman S. Rhu, M.D. (Tucson); Paul J. Slosser, M.D. (Yuma); Charles A. L. Stephens, M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Ben B. Frissell, M.D., Chairman (Phoenix); Ernest A. Born, M.D. (Prescott); Clyde W. Kurtz, M.D. (Phoenix); William G. Payne, M.D. (Tempe); Harold J. Rowe, M.D. (Tucson); Delbert L. Secrist, M.D. (Tucson); Hugh M. Smith, M.D. (Tucson); Noel G. Smith, M.D. (Phoenix); Albert G. Wagner, M.D. (Phoenix); Roy O. Young, M.D. (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roland F. Schoen, M.D., Chairman (Casa Grande); Robert H. Bullington, M.D. (Phoenix); Howard W. Finke, M.D. (Superior); Charles H. Finney, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Ralph T. Irwin, M.D. (Yuma); Paul B. Jarrett, M.D. (Phoenix); John F. Kahle, M.D. (Flagstaff); J. Edwin Keppel, M.D. (Mesa); Clarence H. Kuhlman, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Clarence L. Robbins, M.D. (Tucson); Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Editor-in-Chief, Chairman (Tucson); R. Lee Foster, M.D. (Phoenix); John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Richard O. Flynn, M.D., Co-Chairman (Tempe); Clarence E. Yount, Jr., M.D., Co-Chairman (Prescott); James E. Brady, Jr., M.D. (Tucson); Richard E. H. Duisberg, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Richard B. Johns, M.D. (Phoenix); Fred H. Landeen, M.D. (Tucson); William H. Lyle, M.D. (Yuma); Arthur R. Nelson, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Edward Sattenspiel, M.D. (Phoenix); Roland F. Schoen, M.D. (Casa Grande); John R. Schwartzmann, M.D. (Tucson); William B. Steen, M.D. (Tucson).



Calms the Tense, Nervous Patient in anxiety and depression

The outstanding effectiveness and safety with which Miltown calms tension and nervousness has been clinically authenticated by thousands of physicians during the past six years. This, undoubtedly, is one reason why meprobamate is still the most widely prescribed tranquilizer in the world.

Its response is predictable. It will not produce unpleasant surprises for either the patient or the physician. Small wonder that many physicians have awarded Miltown the status of a proven, dependable friend.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS®—400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).



WALLACE LABORATORIES
Cranbury, N. J.

OH-5648

Clinically proven
in over 750
published studies

- 1 Acts dependably —
without causing ataxia or
altering sexual function
- 2 Does not produce
Parkinson-like symptoms,
liver damage or
agranulocytosis
- 3 Does not muddle
the mind or affect
normal behavior

**WOMAN'S AUXILIARY TO THE ARIZONA MEDICAL
ASSOCIATION – 1961-62 Board Members**

- PresidentMrs. Ian M. Chesser (Lu)
414 N. Country Club Road, Tucson, Arizona
- President-ElectMrs. Frederick W. Knight (Mary)
618 Central Avenue, Safford, Arizona
- 1st Vice PresidentMrs. Clare W. Johnson (Mary Ann)
(Organization and Membership Chairman)
318 West Lawrence Road, Phoenix 13, Arizona
- 2nd Vice PresidentMrs. John Kahle (Rosemary)
(Program Chairman)
2412 N. Talkington, Flagstaff, Arizona
- TreasurerMrs. Herbert D. Welsh (Lynn)
Route 8, Box 18, Tucson, Arizona
- Recording SecretaryMrs. Robert G. Delph (Grace)
4 West 'D' Avenue, Glendale, Arizona
- Corresponding Secretary ..Mrs. Bernard W. Simons, Jr. (Marjorie)
3423 East 4th St., Tucson, Arizona
- Director (1 year)Mrs. Robert H. Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona
- Director (1 year)Mrs. Robert Keller (Maren)
1229 Fifth Avenue, Safford, Arizona
- Director (2 years)Mrs. William D. Nelson, Jr. (Ellen)
2808 Vista Lane, Yuma, Arizona

STATE COMMITTEE CHAIRMEN – 1961-62

- American Medical Education FundMrs. Max Costin (Kay)
2648 E. Fourth Street, Tucson, Arizona
- BulletinMrs. B. E. Lambrecht (Lila)
Box 1837, Miami, Arizona
- By-LawsMrs. Jesse D. Hamer (Clarice)
1819 North 11th Avenue, Phoenix 7, Arizona
- ChaplainMrs. W. Stanley Kitt (Abbie)
2043 E. Fourth Street, Tucson, Arizona
- Community ServiceMrs. Thomas Rowley (Barbara)
114 South Miller Street, Mesa, Arizona
- ConventionMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona
- Civil DefenseMrs. Paul Jarrett (Beverly)
501 East Pasadena, Phoenix 12, Arizona
- FinanceMrs. Seymour I. Shapiro (Arline)
5433 E. 8th Street, Tucson, Arizona
- Health CareersMrs. Earl R. Baldwin (Betty)
3320 North Martin Avenue, Tucson, Arizona
- HistorianMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona
- LegislationMrs. Shaw McDaniel (Eleanor)
114 East Tuckey Lane, Phoenix 12, Arizona
- Mental HealthMrs. John T. Clymer (Eloise)
201 West Flynn Lane, Phoenix 13, Arizona
- NominatingMrs. Robert Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona
- ParliamentarianMrs. John Eisenbeiss (Lucile)
99 West Northview, Phoenix 21, Arizona

- Publications (Newsletter)Mrs. Hubert R. Estes (Mickie)
6911 Soyuluna Place, Tucson, Arizona
- SafetyMrs. C. Selby Mills (Vivian)
1844 E. Keim Drive, Phoenix 16, Arizona
- Student Nurse Loan Fund.....Mrs. Juan Fonseca (Virginia)
2505 Indian Ridge Drive, Tucson, Arizona
- Workshop AdvisorMrs. Hiram D. Cochran (Mary)
35 Camino Espanol, Tucson, Arizona

COUNTY PRESIDENTS – 1961-62

- Coconino CountyMrs. James Wenzel (Nancy)
2143 N. Navajo Drive, Flagstaff, Arizona
- Gila CountyMrs. Charles Bejarano
1048 Adonis Avenue, Miami, Arizona
- Maricopa CountyMrs. Richard B. Johns (Ruth)
508 W. Rose Lane, Phoenix 13, Arizona
- Pima CountyMrs. Frederick J. Hirsch (June)
5817 E. Fourth Street, Tucson, Arizona
- Yavapai CountyMrs. Donald Merkle (Helena)
810 Norris Road, Prescott, Arizona
- Yuma CountyMrs. Ellis Browning (Olive)
2200 16th Place, Yuma, Arizona

**SOCIEDAD MEDICA DE ESTADOS UNIDAS DE
NORTEAMERICA Y MEXICO**

MEDICAL SOCIETY OF THE UNITED STATES & MEXICO

- PresidentDr. Juan E. Fonseca
601 N. Wilmot, Tucson, Arizona
- President-ElectDr. Eduardo Contreras Reyna
Marsella 125 Norte, Guadalajara, Jal., Mexico
- Vice-PresidentDr. Robert E. Hastings
1014 N. Country Club Road, Tucson, Arizona
- Secretary for the United StatesDr. Charles Kalil
200 East Monterey Way, Phoenix, Arizona
- Secretary for MexicoDr. Fausto Zeron Medina
Avenida Alemania No. 535, Guadalajara, Jal., Mexico
- Treasurer for the United StatesDr. Lucy Verneti
2021 N. Central Avenue, Phoenix, Arizona
- Treasurer for MexicoDr. Eduardo Gonzalez Murguia
Juarez 673, Guadalajara, Jal., Mexico
- Exec. Secy for United StatesMr. Byron Browder
3008 E. 6th St., Apt. D., Tucson, Arizona
- Exec. Secretary for MexicoMr. Alfredo Patron
Mazatlan, Sinaloa, Mexico

**COORDINATING COMMITTEE
COMITE COORDINATOR**

- Dr. Harry E. Thompson
- Dr. Hector Gonzalez Guevara
- Dr. Ignacio Chavez
- Dr. W. R. Manning



The casual atmosphere

of Camelback Hospital

is one of relaxed Western living.

Looking east, Camelback Mountain provides the background for the lovely lawn and grove area.

The natural beauty of the surroundings at Camelback Hospital creates, for the patient, a restful, scenic setting.

Camelback Hospital

5055 North 34th Street
AMherst 4-4111

PHOENIX, ARIZONA

OTTO L. BENDHEIM, M.D., F.A.P.A., Medical Director

Located in the heart of the beautiful Phoenix citrus area near picturesque Camelback Mountain, the hospital is dedicated exclusively to the treatment of psychiatric and psychosomatic disorders, including alcoholism.

APPROVED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS; and THE AMERICAN PSYCHIATRIC ASSOCIATION



Even if you prescribed a year's supply



the
last
Optilets
Filmtab
would still be good

Actually, doctor, labeled potency will last a much longer time. While we would never recommend by-the-year dosage of a therapeutic nutritional, this does illustrate the unusual stability of Optilets.

The reason, of course, is Filmtab coating. Unlike previous sugar coatings, no water is needed for application. This virtually eliminates chances of moisture degradation.

Greater stability, however, is just one of Optilets advantages. Without sugar's bulk, we can make tablets up to 30% smaller in size. Coatings are less brittle, and tablets less apt to chip or break. As Filmtab coatings are no more than paper-thin, nutrients are more readily available. Yet, patients are protected from vitamin odors and after-tastes.

While stability is important and easy administration an advantage, ingredients are, of course, the main criteria for any nutritional. Please check the Optilets formulas, doctor. We think you'll find them a good choice for your patients.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

Optilets

Each Filmtab represents:

Vitamin A	7.5 mg. (25,000 units)
Vitamin D	25 mcg. (1000 units)
Thiamine Hydrochloride	10 mg.
Riboflavin	5 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B ₁₂)	6 mcg.
Calcium Pantothenate	20 mg.
Ascorbic Acid	200 mg.

Optilets-M[®]

Each Filmtab represents all the vitamins of Optilets plus the following:

Iron (as sulfate)	10 mg.
Copper (as sulfate)	1 mg.
Iodine (as calcium iodate)	0.15 mg.
Cobalt (as sulfate)	0.1 mg.
Manganese (as sulfate)	1 mg.
Magnesium (as oxide)	5 mg.
Zinc (as sulfate)	1.5 mg.
Molybdenum (as sodium molybdate)	0.2 mg.



when vitamins
give
a repeat
performance

...you can bet they're not from Abbott

Vitamin products generally taste fine going down, but regurgitative effects may often be downright unpleasant. While this seems like a minor problem, bad aftertaste can discourage patients from continuing needed medication ■ Filmtab coatings guard against this possibility. Vitamin repeat is brought to a minimum. Unpleasant odors and aftertastes are effectively sealed inside the Filmtab. Tablets are also *much* easier to take as they

can be up to 30% smaller in size. Bulky sugar coatings have been eliminated and breakage and cracking are less likely ■ As for stability—it's enhanced! No water is used in Abbott's Filmtab coating process. Chances of moisture degradation are virtually eliminated ■ When you recommend Abbott vitamins, Doctor, patients get the potency they pay for—today, tomorrow, a year from now.



Filmtab® vitamins by Abbott:

Dayalets® / Dayalets-M® / Optilets / Optilets-M® / Sur-Bex® with C / Surbex T®

FILMTAB — FILM-SEALED TABLETS, ABBOTT. 202076



makes glaucoma screening easier

"Since approximately 3 to 4 per cent of those patients in the forty-and-over age group may have glaucoma, the value of a routine measurement of the intraocular pressure is self-evident."¹

Screening tonometry for early detection of glaucoma can be incorporated conveniently into any physical examination procedure when the eye is anesthetized with OPTHAININE, the topical anesthetic with the shortest onset time. Instillation of 1 or 2 drops produces adequate anesthesia in approximately 20 seconds or less.^{2,3} OPTHAININE anesthesia is completely safe, because the drug does not damage the corneal epithelium and seems to be less irritating than other agents.^{4,5,6} The duration of anesthesia (about 15 minutes) is adequate for removal of foreign bodies and similar operative procedures. In fact, the properties of OPTHAININE make it ideal for any ophthalmologic procedure requiring topical anesthesia.

SUPPLY: Opthaine is supplied as a sterile 0.5% solution in plastic drop-dispensing bottles containing 15 cubic centimeters. REFERENCES: 1. Gordon, D.M.: *New York J. Med.* 61:3649 (Nov. 1) 1961. 2. McIntyre, A.R.; Lee, L.W.; Rasmussen, J. A.; Kuppinger, J.C., and Sievers, R.F.: *Nebraska State M.J.* 35:100 (Apr.) 1950. 3. Boozan, C.W., and Cohen, I.J.: *Am. J. Ophthal.* 36:1619 (Nov.) 1953. 4. Jervoy, J.W.: *South M.J.* 48:770 (July) 1955. 5. Leopold, I.H.: in Modell, W.: *Drugs of Choice*, 1960-1961, St. Louis, C.V. Mosby Co., 1960, page 699. 6. Linn, J.G., Jr., and Vey, E.K.: *Am. J. Ophthal.* 40:697 (Nov.) 1955

SQUIBB



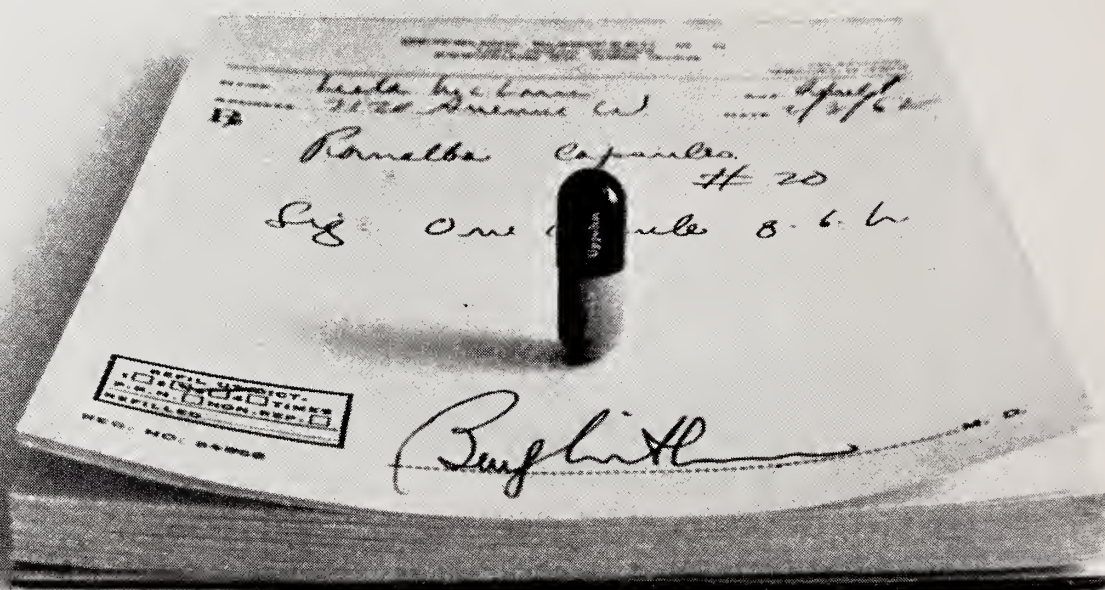
Squibb Quality—the Priceless Ingredient

SQUIBB DIVISION **Glin**

OPHTHAININE

thaine® is a Squibb trademark

SQUIBB PROPARACAINE HYDROCHLORIDE



Launching Pad

In infections of unknown etiology, prescribe Panalba. From the outset, pending laboratory determinations, your treatment is broadened in antibacterial coverage because of the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (selected for its breadth of coverage) and novobiocin (selected for its unique effectiveness against staph). That is why, in most infections of unknown etiology, Panalba offers excellent chances for therapeutic success—and why it should be your antibiotic of first resort.

Upjohn

The Upjohn Company
Kalamazoo, Michigan

Panalba* product information

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules three or four times a day.

Side Effects: Panmycin Phosphate is well tolerated clinically and has a very low order of toxicity comparable to that of the other tetracyclines. Side reactions are infrequent and consist principally of mild nausea and abdominal cramps.

Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyscrasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

*TRADEMARK, REG. U. S. PAT. OFF.

COPYRIGHT 1961, THE UPJOHN COMPANY

DECEMBER, 1961

YOUR PROFESSIONAL GROUP ACCIDENT AND SICKNESS INSURANCE POLICY

**Approved and Recommended by
Your Insurance Committee and
Board of Directors**



**A Program Designed For
The Members Of
THE ARIZONA MEDICAL
ASSOCIATION, INC.**

**By The
NATIONAL CASUALTY COMPANY
OF DETROIT**



**For Complete Information
CONTACT**

CHARLES A. DELEEUEW

3424 N. Central Ave. — AMherst 6-2403

PIMA COUNTY REPRESENTATIVE

RONALD DEITRICH

136 North Stone Avenue MAin 3-0583



who
coughed?

WHENEVER COUGH THERAPY
IS INDICATED

HYCOMINE[®]

Syrup

THE COMPLETE Rx FOR COUGH CONTROL

*cough sedative / expectorant
antihistamine / nasal decongestant*

■ relieves cough and associated symptoms
in 15-20 minutes ■ effective for 6 hours or
longer ■ promotes expectoration ■ rarely
constipates ■ agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE[®] Syrup
contains: Hycodan[®]

Dihydrocodeinone Bitartrate	5 mg.	} 6.5 mg.
(Warning: May be habit-forming) Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate	12.5 mg.	
Phenylephrine Hydrochloride	10 mg.	
Ammonium Chloride	60 mg.	
Sodium Citrate	85 mg.	

Average adult dose: One teaspoonful after meals
and at bedtime. May be habit-forming. Federal law
allows oral prescription.

Endo[®] Literature on request
ENDO LABORATORIES
Richmond Hill 18, New York



sausage?

a problem
for your
gallbladder
patient

For gallbladder patients Entozyme may provide significant relief from the discomforts of fat-induced indigestion. Just six Entozyme tablets (the usual daily dose) digest sixty grams of fat—or more. That's as much as 50 to 90% of the normal daily intake of average adults.

The reason for Entozyme's fat-digestion potency is that each tablet contains 150 mg. of Bile Salts and 300 mg. of Pan-

creatin, N.F. (in an enteric coating). Bile Salts stimulate the flow of bile and enhance the lipolytic activity of both Entozyme's Pancreatin and the patient's own lipase. Together Bile Salts and Pancreatin greatly aid the emulsification and transport of fat.

Entozyme also contains Pepsin, N.F., 250 mg., which facilitates the breakdown of protein.

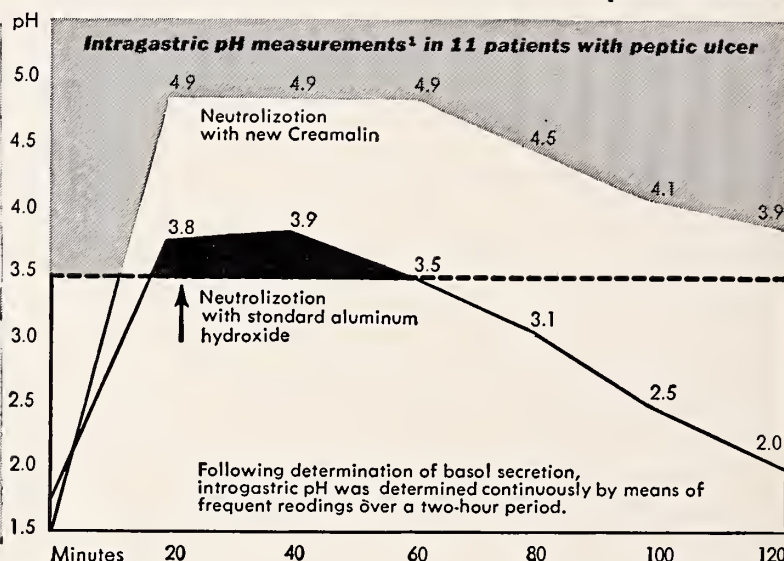
A. H. Robins Company, Inc., Richmond 20, Virginia[®]

entozyme

a natural
digestive
supplement

**Acts as well
in people
as in
test tubes**

in vivo
neutralizes
40 to 50 per cent
faster —
twice as long at
pH 3.5 or above



New Creamalin[®]

Antacid Tablets

Buffers fast¹⁻⁴ for fast relief of pain—
takes up more acid

Heals ulcer fast—action more prolonged *in vivo*

**Has superior action of a liquid, with the
convenience of a tablet⁵**

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. New Creamalin tablets are pleasant tasting and smooth, not gritty. They do not cause constipation or electrolyte disturbance.

Dosage: Gastric hyperacidity — from 2 to 4 tablets as needed.

Peptic ulcer or gastritis — from 2 to 4 tablets every two to four hours.

How Supplied: Creamalin Tablets, bottles of 50, 100, 200 and 1000.

Also available: New Creamalin Liquid (1 teaspoon = 1 tablet), bottles of 8 and 16 fl. oz.

References: 1. Schwartz, I. R.: *Current Therap. Res.* 3:29, Feb., 1961.

2. Beekman, S. M.: *J. Am. Pharm. A. (Scient. Ed.)* 49:191, April, 1960.

3. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:381, July, 1959.

4. Data in the files of the Department of Medical Research, Winthrop Laboratories. 5. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:384, July, 1959.

Winthrop

LABORATORIES
New York 18, N. Y.

FOR PEPTIC ULCER • GASTRITIS • GASTRIC HYPERACIDITY

Board of Directors

MINUTES — DECEMBER 10, 1961

Meeting of the Board of Directors of The Arizona Medical Association, Inc., held Sunday, December 10, 1961, William B. Steen, M.D., Vice President, Chairman, presiding.

ROLL CALL

PRESENT: Drs. Baldwin, Earl R., Beaton, Lindsay E., Brewer, W. Albert, Dudley, Jr., Arthur V., Treasurer, Dysterheft, Arnold H., Hamer, Jesse D., Jarrett Paul B., Neubauer, Darwin W., O'Hare, James E., O'Neil, James T., Schwartzmann, John R., Singer, Paul L., Secretary, Smith, Leslie B., President, Smith, Noel G., Steen, William B., Vice President, Tuveson, Leo L., Yount, Jr., Clarence E., President-Elect, Messrs. Boykin, Paul R., Assistant Executive Secretary, Carpenter, Robert, Executive Secretary.

GUESTS: Baker, Earl J., M.D., Member, Subcommittee on Civil Defense and Safety of the Professional Committee; Wierson, Wesley A., Assistant Executive Director, Blue Cross-Blue Shield Plans.

EXCUSED: Drs. Barker, Jr., Clyde J., Eisenbeiss, John A., McNally, Joseph P., Moody, Edward G., Reed, Wallace A.

ARIZONA STATE BOARD OF PUBLIC WELFARE MEDICAL CARE FOR OLD AGE RECIPIENTS

The President, Dr. Smith, briefed the Board on events following the enactment of the Federal Kerr-Mills Law and progress achieved in its implementation by the several states. Likewise, he reviewed activity in this State and, especially, events leading up to and concluding in a meeting with the Arizona State Board of Public Welfare held in Prescott, Arizona, Thursday, September 28, 1961. While the presentation before the Welfare Board Meeting was considered effective, it is known that the Chairman, Charles P. Neumann, M.D., was strongly opposed to implementation of the Kerr-Mills bill.

Mr. Wesley A. Wierson, Assistant Executive Director, Blue Cross-Blue Shield Plans, was then introduced to generally report on the results of a meeting held December 9, 1961, at which there were in attendance representatives of this Association, the Arizona Hospital Association and Blue Cross-Blue Shield, to discuss a request received from the Arizona State Board of Public Welfare

that a proposal be submitted under the Blue Plans to provide medical, hospital and nursing home care for old age recipients in Arizona. On the basis that only those cases considered "emergency" would be admitted to a private hospital (non-emergency cases to be admitted to county hospitals, as presently) studies are being rapidly concluded by the Plans' Actuary, which, in effect, subject to final determination, would include hospitalization on a semi-private basis for twenty-one days; a surgery schedule of \$250.00; in-hospital medical of \$5.00 per day for twenty-one days; and nursing home care. The experience of Colorado is being used in the development of "exposure" and initially it became quite apparent that it would take approximately \$17.00 per day per month to provide a complete twenty-one day program for \$10.00, allowing only \$2.00 for nursing care to stay within the available \$12.00 per day per patient funds currently available for expenditure by the State Welfare Board. While this first review was quite discouraging, in that the desire was to write a complete program, the actuarial studies seem to indicate, at one point, that the hospitals and doctors (in-hospital medical) would be required to discount the benefits to the extent of 59 per cent. For many reasons, the hospitals are not inclined to accept such program. It is assuming that the "Chief of Service" of each private hospital, or some other responsible official would be the person who would make the decision as to whether the case qualified as an emergency and could be admitted or whether it could be considered non-emergency and, in such instances, sent to the county hospital. Likewise, nursing home admissions are considered to have been immediately preceded by hospitalization. Any final program to be submitted must, of necessity, await the final determination of the Plans' Actuaries. It is expected they will conclude their studies and submit the final result within the next day or two; therefore, the proposal herein outlined is subject to modification. In any event, benefits will be developed to meet the \$12.00 per month, per person of funds available currently to the Welfare Board which must include operating expenses and a contingency reserve (the latter

Arizona Medical Association Reports

would be funded and used only for fluctuation of costs and incidents) in keeping with Kerr-Mills statutory provisions implementation.

Considerable discussion ensued with searching analysis into the problem's many ramifications. It is reported that approximately 14,400 individuals are currently included within the category of old age recipients. The final result of the Actuary Study will be presented to the Arizona State Welfare Board as a proposal of the Blue Cross-Blue Shield Plans.

HOSPITAL, MEDICAL AND SURGICAL BENEFITS PROGRAM KENNECOTT COPPER CORPORATION INTERNATIONAL UNION OF MINE, MILL AND SMELTER WORKERS

Dr. Smith, President, reported regarding a meeting called by the Medical Economics Committee of this Association, November 19, 1961, at the request of representatives of the Kennecott Copper Corporation and International Union of Mine, Mill and Smelter Workers, with the objective to discuss the possibilities of developing a hospital, medical and surgical benefits program underwritten by the Blue Cross-Blue Shield Plans. The major objective of the Union was to develop a program to include professional evaluation of each claim, primarily to determine essentiality of the service and/or surgical procedure, when indicated; likewise, to attempt to control excessive hospital utilization. Any plan developed must, of necessity, take into consideration the four-state area of Arizona, Nevada, New Mexico and Utah wherein Kennecott operations are currently carried on. While the deliberations were pleasant and considered productive, it was concluded that contact would be made with the local Blue Plans in the hope of developing a mutually agreeable plan.

Mr. Wiersen, representing the Blue Plans, reported that negotiations had been under way in an endeavor to provide a satisfactory program, acceptable to Kennecott and the Union, during the past several years. The effort, to date, has failed because previous suggestions have not met with the Union's approval. The last such proposal was submitted in May of this year and the greatest difficulty prior to that time was the fact that there was no Blue Shield Plan in New Mexico. Recently, such plan has been instituted in that State and the previous proposal was re-submitted to both the Corporation and the

Union. While the benefits approximate the present program, in effect covering employees and dependents of Kennecott, it is anticipated the proposal will meet most, if not all, of the medical needs of the employees, and the fact that it will be administered on a cost-plus basis permits a maximum of flexibility in the final determination of the benefit pattern. It is a starting point for further negotiation.

The Union Representatives stressed the desirability of providing a program based upon the principles of the "Foundation Plan" currently in operation in many counties in California, applicable to similar contract insurance programs. It provides for a review committee of all claims submitted. Currently, the Arizona Blue Plans provide such service through the medium of operation of a Professional Committee, which latter body reviews only claims in dispute and does not attempt to evaluate each and every claim based upon necessity and essentiality.

It was agreed that a copy of the proposal recently released to Kennecott and the Union would be provided and forwarded to the Association through the Central Office.

CIVIL DEFENSE

At the request of the President, Dr. Earl J. Baker, Member of the Subcommittee on Civil Defense and Safety of the Professional Committee of this Association, was invited to be present and report the results of a recent meeting he attended in California referable to Disaster Medical Care. The full context of Dr. Baker's report will be transcribed and placed on file for future reference.

Dr. Baker further reported that the Maricopa County Medical Society will hold a meeting on January 29, 1962, to be devoted to Civil Defense; further, it has obtained 700 reprints, at a cost of twenty-five cents each, comprising an article entitled "The Physician in Civil Defense," appearing in the New York State Journal of Medicine during 1960 and 1961, which includes a series of articles prepared by Solomon Garb, M.D., who is Secretary of the Medical Education for National Defense Committee of Albany Medical College, which it plans to distribute so that each of its members might have the benefit of the material contained therein for ready reference. The publication covers "Survival in a Thermo-nuclear War" including in its scope: "1. The Need for Action; 2. The Effects of Hydrogen Bombs; 3. Important Aspects of Nuclear Radia-

tion; 4. Basic Principles of Protection from Hydrogen Bombs; 5. Types of Shelters; 6. Providing Safe Ventilation; 7. Comparison of Different Shelters; 8. Basic Dietary Supplies and Equipment for Shelters; 9. Hope for the City Dweller; 10. When Time is Short; 11. Protection of Houses Against Blast and Fire; and 12. Some Final Considerations". The series of articles appear to be so well done, in the opinion of Dr. Baker, that he suggests that additional copies be procured and distributed among the remaining members of the Association, or otherwise, possibly permission might be obtained to publish the content in *Arizona Medicine*. In this latter instance, however, time is of the essence and it might be much more practical to pursue the first suggested course.

Dr. Neubauer advised that certainly it would be possible to publish an article, or series of articles, in *Arizona Medicine*, dealing with the subject. He called attention, however, to his knowledge that the Missouri Journal will run a series of articles in its January, February and March issues, likewise dealing with this subject, having as its basis the series of articles prepared by Solomon Garb, M.D.; however, bringing the information up to date. It is his view that it might be more appropriate to republish, either in one issue devoted entirely to Civil Defense, or a subsequent series, the more current information, and he feels quite certain he can obtain from Charles R. Doyle, M.D., Editor of the Missouri Journal, approval for such republication, giving, of course, credit to that Journal and author.

It was moved by Dr. Neubauer, seconded by Dr. Dudley and unanimously carried that we endorse and support the program as presented this morning by Dr. Baker and encourage that it be implemented as best we can.

It was moved by Dr. O'Hare, seconded by Dr. Beaton and unanimously carried that the series of articles on Thermonuclear War, authored by Solomon Garb, M.D., of New York, to be published in the Missouri Journal, with the approval of Editor Doyle, be published in *Arizona Medicine Journal* at the earliest possible time.

It was moved by Dr. Smith, seconded by Dr. Schwartzmann and unanimously carried that the resignation of Howard W. Kimball, M.D., as a member of the Professional Committee, serving as its Chairman on the Subcommittee on Civil Defense and Safety, be accepted; that Earl J.

Baker, M.D., of Phoenix, be appointed a member of the Professional Committee of this Association for the unexpired term, 1961-1964, filling the vacancy caused by the resignation of Dr. Kimball, and designated Chairman of the Subcommittee on Civil Defense and Safety; and that Drs. Earl J. Baker (Phoenix), and Robert J. Johnson, (Tucson), be appointed to represent this Association serving on a Steering Committee, requested appointed by Colonel Ralph A. Redburn, Director of the Arizona State Department of Civil Defense.

EXECUTIVE COMMITTEE REPORT

Dr. William B. Steen, Vice President and Chairman of the Board of Directors, reported the following actions taken by the Executive Committee in meeting held October 22, 1961.

Arizona Days and Ways

The Board, by mail poll, voted seventeen in favor, four in disfavor, and one not voting, authorizing execution of a contract with Arizona Days and Ways Magazine, 50th Anniversary Edition, February 11, 1962, through the Phoenix Newspapers, Inc., subscribing to a full page insert, duotone or spot color, at a cost of \$710.00, as a contribution by this Association in support of recognition of the 50th Anniversary of the State of Arizona. The contract has been executed.

Arizona Corporation Commission

Attention was directed to a recent ruling requiring non-profit corporations, with the exception of religious organizations, to file annual reports with the Arizona Corporation Commission accompanied by a fee of \$25.00. A penalty of \$20.00 per year for default is likewise involved. As far as is known, none of the three thousand or more non-profit organizations have complied with this statutory requirement recently discovered. It is understood the ruling will not be enforced at the moment because of the sizable sum of money involved affecting some of the corporations, dating back to the date of incorporation. It is anticipated the legislature will introduce a measure exempting such non-profit corporations from this requirement.

Legal Retainership

Snell & Wilmer submitted a breakdown of legal services rendered this Association for the months of January through August, 1961, amounting to \$2,720.00 for general services and \$4,170.00 for legislative activities for a total of

Arizona Medical Association Reports

\$6,890.00. The firm has been reimbursed to the extent of \$500.00 per month, legal retainership, for a total of \$4,000.00 resulting in over-utilization to the extent of \$2,890.00. While it is the hope that the need for legal services during the remainder of this calendar year will be minimal, offsetting some portion of this over-utilization, it is anticipated the total expenditure for the year will exceed the sum appropriated.

The President pointed out that in 1954, the then Council adopted a resolution "that any major operative expenditure exceeding \$500.00 per year shall be referred to Council, and that any other major request to exceed the allotted budget by as much as \$500.00 shall also be referred to Council." He suggested that possibly the Board of Directors should review this policy and either reaffirm or modify its provisions.

It was determined to recommend to the Board of Directors that legal services be made available to committees and others only on authorization of the President in the hope that utilization of such service might be held to a minimum; further, that it be recommended to the Board that it attempt to negotiate a complete fee for legal services required.

It was moved by Dr. Neubauer, seconded by Dr. Schwartzmann and unanimously carried that we allow our agreement to continue as is and not to alter it or renegotiate it.

It was moved by Dr. Neubauer, seconded by Dr. Schwartzmann and unanimously carried that legal services be made available to committees and others only on authorization of the President.

AMA Clinical Meeting — Denver

On mail poll vote of the Board, seventeen voting in favor, four in disfavor, and one not voting, the President-Elect, Dr. Clarence E. Yount, Jr., was authorized to, and did, attend the Clinical Session of the American Medical Association held in Denver, Colorado, November 28 through December 1, 1961, as a representative of this Association, thus at its expense.

Public Relations Committee

The meeting of the Public Relations Committee held July 23, 1961, in line with directive of the Board of Directors by mail poll, sixteen members voting in favor of continuation of the "Personal Reporter" publication, five disapproving, and one member not voting, the following policy was established: "1. The communication of information at frequent intervals to individual

medical practitioners, and other interested parties for the development of an intelligent, understanding and wholesome viewpoint of the problem of the medical profession both State and nationwide. 2. This information to be disbursed by the release of material through any or all media approved by the Board of Directors of The Arizona Medical Association, Inc. 3. The encouragement of participation by the Women's Auxiliary of the Arizona Medical Association in the preceding objectives,"; development of a Speakers Bureau and operational procedure was established; participation in and subscription to Arizona Days and Ways Magazine commemorating the 50th Anniversary of Arizona Statehood (1912) recommended; and designated Lindsay E. Beaton, M.D., Delegate to AMA, to attend the P/R Institute, conducted by AMA, representing this Committee.

Women's Auxiliary

Final accounting of expenditures for accommodations provided the Women's Auxiliary during the 1961 Annual Meeting, totaling \$121.42, reflects payment by its President of \$6.16, the Auxiliary \$78.40 and this Association assuming the balance of \$36.86.

Membership Changes

Maricopa Society: Mihajlo Matanovich, M.D., active member, granted dues exemption effective January 1, 1962, having reached the age of seventy, July 30, 1961; Trevor G. Browne, M.D., active member, granted dues exemption effective January 1, 1962, having reached the age of seventy, July 6, 1961.

Pinal Society: Charles H. Karr, M.D., active member, granted Associate Membership, dues exempt, effective January 1, 1962, account residency training.

Pima Society: William Garcia, M.D., active member, granted Associate Membership, dues exempt, effective January 1, 1962, account residency training; Adele C. Ward, M.D., active member, granted Associate Membership, effective January 1, 1962, dues exempt, account residency training.

Georgia Association — Resolution

Resolution adopted by the House of Delegates of the Medical Association of Georgia going on public record as stating emphatically that the AMA does indeed represent their will and desire and that the present leadership of the AMA enjoys the full confidence and support of the

entire membership of the Medical Association of Georgia, was presented and it is recommended that a similar resolution be prepared and introduced into the House of Delegates of this Association at the forthcoming 1962 Annual Meeting.

It was moved by Dr. O'Hare, seconded by Dr. Baldwin and unanimously carried that this Board recommend the introduction of such a resolution in the House of Delegates of this Association during its 1962 Annual Meeting.

The Chairman delegated Dr. Lindsay E. Beaton to prepare an appropriate resolution for such purpose.

American Pharmaceutical Association

The American Pharmaceutical Association presented background information pertaining to what it believes to be a public health hazard, emphasizing that prescription mail-order operations are illegal under most state laws. This subject was referred to the Professional Liaison Committee for study and report.

Pacific Health Plan

Pacific Health Plan of California presented its program designed for medical group participation providing methods whereby adequate medical and hospital care can be made available to members of the community on the basis of pre-paid service type contracts through duly licensed physicians, organized to practice as a medical group. This matter was referred to the Medical Economics Committee for study and report.

Physically Handicapped Award

The President's Committee on Employment of the Physically Handicapped sought nominees for its 1961 Physician's Award made to those members of the medical profession who have contributed immeasurably to the program of rehabilitation of the physically handicapped. Dr. Palmer Dysart has been communicated with to ascertain whether or not there might be a candidate worthy of such nomination, he being active in the field of rehabilitation.

Pima Society — YWCA

Pima County Medical Society reported contact with the local YWCA. It was determined that the latter organization, through its National body, had not been contacted in regard to endorsement of health benefits through the Social Security System. It was the suggestion that this might be opportune to present medicine's point of view and that of others regarding legislation

designed to provide medical care for the aged under Social Security.

Gila County Medical Society

Suggestion was made that Nelson D. Brayton, M.D., member of the Gila County Medical Society, be considered for the 1962 A. H. Robins Company Community Service Award.

Scientific Assembly Committee

AMA Calls attention to 1956 Stover Committee recommendations on activities of the Joint Commission on Accreditation of Hospitals adopted by its House of Delegates in June of that year, one of which was that "each county medical society seriously consider devoting one meeting during the course of the year to a discussion of this particular program" and that "the state associations incorporate a symposium on the subject in their annual meeting programs" whenever feasible. While it was determined not to include such programs on the agenda for the 1962 meeting it was agreed to refer the subject to the Public Relations Committee, suggesting that this information might be brought to the attention of the members through the medium of the "Personal Reporter."

USPHS

IMMUNITY FROM TORT LIABILITY

C. C. McLean, M.D., of Birmingham, Alabama, submits information on the subject: "U. S. Public Health Service: Immunity from Tort Liability" with particular reference to verdicts against Cutter Pharmaceutical Laboratories in the instance of live virus polio vaccine. In protection of the health, welfare and safety of the American people, medical associations are being urged to use their influence with State Legislatures in passing a legislative act taking away from Federal, State, County and Local Government, medical and public health agencies, their immunity from tort liability and requiring that each of these agencies carry liability insurance. This subject was referred to the Legislative Committee.

Pima Society — Resolution

For information of the Association, presented was a copy of Resolution adopted by the Board of Directors of Pima County Medical Society, October 5, 1961, commending The Commonwealth Fund, the entire Arizona Medical Study Committee, the Board of Regents and President Richard A. Harvill for instituting efforts toward establishing a medical school at the University

Arizona Medical Association Reports

of Arizona, and offering its assistance in furthering and completing the medical school.

ALTERNATE DELEGATE TO AMA

Dermont W. Melick, M.D., by letter dated November 6, 1961, submits his resignation as an Alternate Delegate to AMA for the term January 1, 1962 to December 31, 1963. He feels he would not be in position to accept assignment as Delegate, if elected, and is strongly of the opinion that an Alternate Delegate should serve to equip himself for the possibility of such future assignment.

It was regularly moved and unanimously carried that the resignation of Dermont W. Melick, M.D., as Alternate Delegate to the AMA, be accepted with regret.

CENTRAL OFFICE ADVISORY COMMITTEE

Financial Report

Dr. Dudley reviewed, in detail, the Statement of Income and Expenditures through October 31, 1961. Receipts totaled \$40,949.62, representing 68% of the anticipated budget amounting to \$60,095.00. Expenditures totaled \$83,810.68, representing 75% of the budget amounting to \$112,107.00, representing seven months of the nine-month period (April 1, 1961 to December 31, 1961). The overall financial situation was carefully analyzed and considerable discussion ensued. The report was approved.

Membership Changes

Maricopa Society: Lewis B. Claypool, M.D.; James M. Hurley, M.D.; and Thomas Clyde Wilmoth, Jr., M.D., active members, granted Associate Membership, effective January 1, 1962, account military service.

Pima Society: George D. Boone, M.D., active member, granted Associate Membership, effective January 1, 1962, account illness; Frank D. Morrison, M.D., active member, granted Associate Membership, effective January 1, 1962, account postgraduate training; and W. Claude Davis, M.D. and Luis N. Carrada, M.D., active members, exempted from dues payment, effective January 1, 1962, having reached the age of seventy during the calendar year, 1961.

GRIEVANCE COMMITTEE

Associate with the AMA Report of the Medical Disciplinary Committee to the Board of Trustees dated June, 1961, referred to the Grievance Committee for review and comment, it is advised that, on the whole, the conclusions and recom-

mendations reached are forward looking and proper. Reference is made numerous times to the need for indoctrination in "proper socio-economic principles." The Committee recommends that this be done in medical schools and that it also be a requirement for accreditation of hospitals with resident or intern training programs.

DR. BEATON: There are two separate recommendations from the Grievance Committee:

1. We would like to find out what the phrase "proper socio-economic principles" means so that we can advise our hospitals, when they are advised to give these indoctrination courses, exactly what they should give. The Medical Disciplinary Report was passed by the House of Delegates with some important exceptions which I will mention in a moment but this part was not challenged, so that is the AMA decision that hospitals shall give courses with indoctrination in such principles. I think that we have a perfect right to ask AMA what they mean.

2. Our second recommendation was that we felt that giving the AMA original jurisdiction, that is the capacity or the permission, to discharge from membership on its own motion without any motion on the part of the state was federalization of medicine and something that we stood against. We thought that the AMA, through its Judicial Council, should have only appellant jurisdiction over motions that had come from the state with regard to any ethical or disciplinary action.

I spoke with Dr. Smith about this at the time of the last Grievance Committee meeting; the day we had an Executive Committee meeting, too, and he said that he agreed with this so when this matter came up, as it did — very strongly — on the floor of the House of Delegates in Denver, Dr. Hamer and I felt permitted to vote against such original jurisdiction, brought up first by Texas and then by New York, and finally the House voted not to grant the AMA original jurisdiction. This whole thing was referred back to Committee for further consideration and this is where it stands at the present time. The second part of our recommendation would, therefore, seem to have been already carried out, at least for the time being. This portion of the Medical Disciplinary Report was not accepted. Now this is curious. It was accepted first by the House in June, but when it came up to the question of changing the By-

Laws so that they could do it, the House refused to sustain it in Denver and, obviously, it means that people that had a few months to think about it finally determined that they didn't want the Judicial Council to be able to dismiss members. They want this right preserved for the state and certainly this is our feeling. In the Reference Committee on Constitution and By-Laws, there was concern over the Judicial Council being accuser, judge and jury which resulted in the decision finally reached on the floor of the House.

It was regularly moved and unanimously carried that the Board of Directors inquire into the exact meaning of the phrase "proper socio-economic principles"; and that there be referred to the House of Delegates of this Association, by Resolution, the subject as to whether or not it is the feeling of the Arizona Medical Association that there should be no original jurisdiction in the American Medical Association to remove AMA membership.

LEGISLATIVE COMMITTEE

Arizona Hospital Association

Dr. Smith reported that he had the honor of being one of the principal speakers at the Eighteenth Annual Arizona Hospital Association Convention held in Phoenix, October 19, 1961. At the time, a Kenneth Williamson, Director of the Washington Service Bureau of the American Hospital Association, likewise participated in the program. In effect, he urged hospital directors to "face the facts of life: That the federal government already is a major participant in health affairs"; further, he added that the federal government is the "major financier of education and health personnel, health facilities and medical research"; and that "the roll of the federal government is widely accepted" in health affairs. Flatly predicting that the government will accept social financing in medical care for the aged, Williamson said this will mark the government's "first move into a new area with social security without a needs test." Further commenting, Williamson stated: "This will be a major health program where the citizen is entitled to medical attention by right," calling the coming year "a year of decision on the health care of the aged by use of the social security mechanical structure," and "Government is going to accept social security financing and the area of compromise and decision will be with respect to the benefits to be provided and the

administration of benefits," urging administrators to "Realize that the federal government is a major part of the public health program" indicating that the group's future is "related to the way we work" with federal agencies.

Dr. Smith further pointed out that having heard these comments and realizing, at least at the moment, the American Hospital Association is opposed to this view, he had communicated with AMA, Dr. Blasingame, Executive Vice President; also with Joe Stetler, Director of the Legal and Socio-Economic Division of AMA. The utterances of Williamson will be discussed with the American Hospital Association in the light of their present position in an endeavor to ascertain whether or not it contemplates a change in its views. Despite Williamson's delivery, the Arizona Hospital Association adopted a resolution at the meeting going all out in support of the Kerr-Mills Law and approach to care for the aged, directly in opposition to the King-Anderson law approach.

Colorado State Medical Society – Campaign Report

Dr. Smith presented, for information, the campaign being conducted by the Colorado State Medical Society and special assessment of \$50.00 on all senior active members and \$15.00 on all junior active members levied "in order to augment the individual efforts of all physicians to actively combat the continuing threat of socialized medicine." There is little doubt on the part of the committee that the most pressing problem that faces not only organized medicine but the country as a whole is the now present attempt of those forces, within the federal government in particular, to further the intentions of socialization in general and socialized medicine in particular by approaching it through the care of the ill, but particularly the aged ill. Certain of the findings already revealed were reviewed.

Speakers Bureau – Public Relations Committee

The Public Relations Committee seeks the views and approval of this Board to develop a "Speakers Bureau" to be comprised of member doctors of medicine throughout the State, who will be trained to equip them to return to their communities and carry the message to various service organizations, clubs, etc. A one-day educational program is proposed to be conducted to include public speaking and public relations

Arizona Medical Association Reports

in general. The cost is estimated as modest and possibly can be financed out of its budget, or it will have to seek supplementary funds from this Board. It is desirable to initiate the program in January, inviting participation from within and without the State to such one-day forum. It is suggested that much assistance to this end could be obtained through the organization of the AMA's National Speakers Bureau and it is assumed it will be more than willing to offer every assistance.

It was moved by Dr. Dudley, seconded by Dr. Beaton and carried that the Public Relations Committee pursue their recommendation of investigating and putting into action a Speaker's Bureau.

MEDICAL ECONOMICS COMMITTEE

Medicare Contract — Supplemental Agreements

Submitted by the Office for Dependent's Medical Care, associate with the current Medicare Contract No. DA-49-192-MD-9, is a Supplemental Agreement which, in effect, will amend the Contract, prohibiting distribution to physicians any of the fees contained in the Medicare Manual and Schedule of Allowances and Addenda thereto. On review by the Fiscal Administrator (Arizona Blue Shield Medical Service) it is concluded that adherence to the provisions of this Supplemental Agreement restricting the publication and distribution of the Medical Fee Schedule should work no great hardship on either the members of the Association or the fiscal agent. This is based upon the fact that almost all of the physicians in Arizona today, participating members, have in their possession the fee schedule and the only doctors such regulation will affect will be the new licensees, they having no knowledge of its content.

It is to be noted that the Montana Association's House of Delegates refused to execute a similar Supplemental Agreement in behalf of its members in that it considers it not a secret agreement, was negotiated and entered into on behalf of its members and, therefore, becomes the property of each member. Recently, the House of Delegates of the New Mexico Medical Society similarly determined not to execute this Supplemental Agreement; further, that if the Office of Dependent's Medical Care insists, it will refuse execution of any contract renewal agreement in April next at the time of expiration of their current Medicare Contract. That

body, too, considers the Contract between ODMC and its physicians not a secret document.

ODMC submits an additional Supplemental Agreement providing contract modification dealing with reimbursement for advertising costs. The Fiscal Administrator has reviewed the contract and inasmuch as it has been determined such advertising costs have not entered the cost picture in the past and will in no way hamper its obligations as the Fiscal Administrator, caused execution of the agreement. "Advertising" is implied, in this instance, to cover job placement needs, sub-contract letting, etc. While such recruitment advertising costs are considered legitimate in the instances where a well-managed recruitment program is in operation and will be recognized, certain limitations are placed through this modification, to assure reasonableness of cost and any issues not standard practices will be unallowable.

Communication from Colonel Walker W. Evans, Contracting Officer, Office for Dependent's Medical Care, was presented and read in the matter of concern over cost of paying claims through Fiscal Administrators selected by each state medical association. This is in keeping with the Secretary of Defense's policy of August 11, 1956, that such a procedure could be followed if other things were equal and the interests of the government were fully protected. During the five years of operation, the claims-processing rates have varied widely from time to time and from state to state. It is felt that substantial dollar savings can accrue to the government through review and adjustment of certain of the current practices relating to contracting for the payment of physicians for authorized medical service. Currently, the claim rate experienced by the Arizona Blue Shield Medical Service, the Fiscal Administrator paying Arizona physicians, is among the highest in the United States. It appears that no substantial reduction in claims reduction costs can be expected, largely because of the relatively small volume of claims processed and the manner in which costs of this kind are incurred. In view of this situation, and in the context of a mutual desire to minimize administrative costs, it is proposed as a substitution for current contractual arrangements due to expire February 28, 1962, one of the following: (a) the acceptance by ARMA, the Arizona Blue Shield Service and the Government, in a new contract effective

Arizona Medical Association Reports

March 1, 1962, of a proviso which would place a ceiling upon the amount of the claim rate to be paid by the Government; or (b) a three-party contract between ARMA, the Government and a new fiscal administrator. Under this arrangement, your society would propose a currently operating claims-paying agency other than the Arizona Blue Shield Medical Service to act as Fiscal Administrator to pay Arizona physicians' claims.

Should the Association decide upon proposal (a), it would be appreciated that ODMC be advised of the lowest amount acceptable for processing claims. If this amount is acceptable, the contract will establish such claim rate as the maximum which the government will pay, subject to an audit determination that the incurred costs justify the figure. The national average administrative cost of paying a physician's claim during the period July 1, 1959 through June 30, 1960 was \$2.04.

Should proposal (b) be the choice of the Association, information available to ODMC shows that the Hospital Service of California and the Hospital Service, Inc., Albuquerque, New Mexico, have experienced low levels of claims-processing costs. It would be pleased to consider any similar type agency suitable to the Association.

The Executive Secretary stated that he had been in contact with the Fiscal Administrator in this regard and it is its desire to adjust the current costs, recognizing that presently, somehow a larger percentage of the total cost is apportioned against physician payments than that applied to hospital payments when, in fact, the cost ratio is nearly equal or at least, less to service physician's claims. We may expect a report from the Fiscal Administrator in due course.

It was moved by Dr. Neubauer, seconded by Dr. Beaton and unanimously carried that the Supplemental Agreement submitted by ODMC for execution pertaining to publication of the fee schedule, be rejected; that the Supplemental Agreement dealing with reimbursement of advertising costs, on recommendation of the Fiscal Administrator, be accepted and authorized executed; and that the Office for Dependents' Medical Care be informed that should it be determined to renegotiate and execute a renewal or new Medicare Contract, March 1, 1962,

that the Association express its desire and wish to continue the present arrangement using as Fiscal Administrator, its Arizona Blue Shield Medical Service.

A third Supplemental Agreement submitted by ODMC for execution is in hand providing revision concerning (a) Statement of services provided by civilian medical sources and (b) Appendix A. This has been referred to the Fiscal Administrator for review and comment in that basically it is presumed to cover entirely details of administration of the Medicare program. We are awaiting response. No action indicated at this time.

California Western Life Insurance Co.

It was reported that the California Western Life Insurance Company, underwriters of this Association's Group Life Insurance Program, submitted its Master Agreement for execution. While this Board has already sponsored the program, before execution, such Master Agreement has been referred to counsel for review and comment. His report is being awaited. No action indicated at this time.

PROFESSIONAL COMMITTEE

The Chairman read the report, including actions taken, by the Professional Committee in meeting held October 29, 1961:

Aging

1. Recommended that Board of Directors notify all component county medical societies, suggesting that their respective committees on aging work actively with the county supervisors in helping to improve out-patient and hospital services in the instance of the aged group in the hope this may be a deterrent to enactment of federal legislation to accomplish its objective to provide care for the aged under the social security system.

2. Recommended that the Board of Directors form a special committee to investigate the possibility of prepaid insurance to be provided by a combination of the city, county and State governments of Arizona to take care of the indigent and medically indigent.

Cancer and Medical Education

Recommends that State Cancer Society set up their own voluntary tumor registry in cooperation with the Arizona State Health Department.

Civil Defense and Safety

1. Relating to radiation fallout protection contained in report of the Governors' Confer-

Arizona Medical Association Reports

Committee on Civil Defense, in meeting held in Washington, D. C., September 17, 1961, recommends to Board of Governors for its adoption, that the Federal Government:

I. Issue a strong and positive statement in support of the family fallout shelter program for individual families or groups of families;

II. As evidence of its support of this family fallout shelter program, and to provide an incentive to individuals in obtaining fallout protection, urge Congress to authorize an income tax deduction (in the calculation of net taxable income) for the cost of family fallout shelters (up to a maximum of \$100 per planned shelter occupant) or, failing this, provide some other assistance as an incentive;

III. Take action to make fallout protection mandatory in all construction built with Federal funds or grants or financed with Federal loans or guarantees except where this cannot be done without undue hardship;

IV. Promote fallout protection in those private industrial establishments working under defense contracts;

V. Initiate immediate action to provide fallout protection for the Federal Armed Forces and to assist the States, on a matching-fund basis, in providing similar protection for their Armed Forces;

VI. Facilitate and expedite the development of the reliable, rugged and inexpensive instruments required as essential equipment in fallout shelters; and

VII. Establish a plan, under FHA or similar arrangements, for long-term (10 years) low-interest loans to low and middle income home owners and to all owners of multi-family dwellings (three or more families) to cover the cost of fallout shelter construction in such homes and dwellings.

2. Recommends to Board of Directors that State Legislature be encouraged to enact a law making shelter construction on multi-unit and multi-story buildings mandatory and that component medical societies, likewise, be urged to support such measure on the local level.

Mental Health

It is anticipated effort will be renewed during the forthcoming Legislative Session to enact a measure to create an institution for disturbed children. It is the opinion of the Professional Committee that the need is considered great,

somewhere between sixty and one hundred twenty such children in need of immediate attention; that psychiatric beds therefor outside the Arizona State Hospital should be provided; and that the facility for such care should be located somewhere within the areas of Phoenix or Tucson where psychiatric services are available. Recommends to Board of Directors that it express favor in principle of this type of institution without going into details as to location.

It was moved by Dr. Singer and seconded by Dr. Dudley that the report of the Professional Committee be accepted. Discussion ensued.

As regards the matter of fallout shelters, Dr. Beaton called attention to action of the AMA House of Delegates in meeting held June last which, in essence, suggested that legislation be provided working toward the construction of community fallout shelters. At the Denver meeting of the AMA House, two resolutions suggesting family fallout shelters were presented and shelved and the June action in this regard reaffirmed. It is anticipated the Federal government will, in January next, present a statement dealing with shelters.

It was moved by Dr. Beaton, seconded by Dr. Dudley and carried that the motion before the Board be amended to the extent that this portion of the report (dealing with family fallout shelters) be disapproved, being contrary to national medical policy.

The original motion, as amended, was then carried.

Civil Defense — Arizona-California Meeting

It was moved by Dr. Smith, seconded by Dr. Tuveson and unanimously carried that Dr. Earl J. Baker (Chairman — Subcommittee on Civil Defense and Safety) and whomever he wishes, meet with the California Committee on Disaster Medical Care in Yuma or some place of mutual satisfaction to pursue this matter.

Civil Defense — Nuclear Attack — Medical Self-Help Program

Colonel Ralph A. Redburn, State Director, Department of Civil Defense, by letter dated November 29, 1961, reviews the potential of nuclear attack and reviews suggested program whereby, during 1962, it is contemplated to teach some 50,000 individuals within Arizona a course in medical self-help training. Such course, it is stated, has been evolved by the department of HEW, Office of the Surgeon General, in co-

operation with AMA and Office of Civil Defense, Department of Defense. Appointment of a steering committee is planned to assist in this endeavor and representation thereon including members of the Arizona Medical Association is considered desirable and requested. Representatives of the Arizona State Department of Health and Dr. Earl Baker also have already attended the training course. From this small nucleus, it is necessary to expand the teaching force where-by it will be possible to meet the goal.

Dr. Earl J. Baker (Phoenix) and Dr. Robert J. Johnson (Tucson) were previously designated representatives of this Association to serve on the proposed steering committee.

PROFESSIONAL LIAISON COMMITTEE

Arizona Blue Cross-Blue Shield Bulletin

Norman A. Ross, M.D. (Phoenix) raised certain objections to the content of a Blue Cross-Blue Shield Bulletin, Vol. 1, No. 2, dealing with "Professional Relations." In essence, it appears that he has interpreted the information received as being sent to all participating members of the plans, namely, the policyholders, while in fact it was distributed only to the participating doctors. Dr. Ross will be so informed. Action approved.

ARMA-AHA-HIC Joint Committee

The Arizona Hospital Association seeks organization of a Joint Committee desirable to comprise members of its group, the Arizona Medical Association and the Health Insurance Council to work out an admissions plan concerning insurance forms and also to coordinate its activities for the betterment of all three organizations. A meeting is scheduled to be held January 24, 1962.

John L. Cogland, M.D. (Phoenix), Donald A. Polson, M.D. (Phoenix), and John R. Schwartzman, M.D., as Chairman (Tucson), were appointed to serve on this Joint Committee as representatives of this Association.

Administration of Fluids by Nurses — Joint Statement

The Arizona Hospital Association presented a proposed joint statement, drafted by its attorney, Mr. Cheifetz, concerning administration of fluids (including blood) by nurses practicing in this State, desirable to be endorsed by this Association.

It was moved by Dr. O'Hare, seconded and unanimously carried that we accept this provid-

ing this does not restrict the doctor in any way that the Medical Practice Act does not restrict him.

The Chairman then proceeded to review actions of the Professional Liaison Committee in meeting held November 12, 1961:

Osteopathy

It was determined that when liaison is sought by the osteopaths, and desirable, the full membership of this Committee make itself available and attend any such meeting; and recommended that the AMA Statement of Policy dealing with Osteopathy be fully publicized in Arizona Medicine for the edification of the members. Dr. Neubauer reported that this latter recommendation has been accomplished.

It was moved by Dr. Beaton, seconded by Dr. Baldwin and unanimously carried that the Professional Liaison Committee be requested to develop some kind of policy dealing with Osteopathy in Arizona (in line with action of AMA) for presentation to and consideration of the House of Delegates of this Association at its next annual meeting and report.

Podiatry

Recommends that the Statement of Policy regarding Podiatrists, adopted by the American Academy of Orthopaedic Surgeons, be adopted our code, deleting the paragraph referable to the performance of surgery by podiatrists acting as technicians under supervision of a staff surgeon, which is to be denied and then the policy will read:

1. There is a place for podiatrists in hospitals.
2. The extent of podiatry service should be determined at the local level and vary with the size, type, staff organization of, and service rendered by the hospital.
3. These services should logically be provided in the Out Patient Departments of those hospitals in which podiatrists are permitted to practice and be confined within the scope of the practice of podiatry as authorized by the statutes of the state.
4. The services of podiatrists in hospitals are in the best interest of the public only when rendered under medical supervision and should be confined to the Out Patient Department.
5. The services of podiatrists in hospitals must be rendered under one of the existing

Arizona Medical Association Reports

Departments or Sections which has been charged with the supervision of podiatry services. Provision of podiatry services in the hospital does not confer on podiatrists the privilege of admitting patients to the hospital.

6. The podiatrists in their relationships with physicians should subscribe to and comply with "Guiding Principles for Relations Between Physicians and Allied Health Professions" as recommended to the A. M. A. by the Committee on Relationships of Medicine with Allied Health Professions and Services and as adopted by the House of Delegates of the A. M. A., June 16, 1960.

It was moved by Dr. Smith, seconded by Dr. Schwartzmann and unanimously carried that this be adopted as a policy of the Arizona Medical Association until such time as it may be rescinded by the House of Delegates.

School Health Seminar

Recommends, with the support of the Board of Directors, that plans for development of a one-day school health seminar to be held, possibly in February next, in Phoenix in the auditorium of the Maricopa County Health Department, with representation from all fourteen component societies, be proceeded with.

It was moved by Dr. Beaton, seconded by Dr. O'Hare and carried that the report be approved.

PUBLIC RELATIONS COMMITTEE

Personal Reporter Publication

Dr. Neubauer presented for discussion the continuation of the publication "Personal Reporter," setting forth his interpretation of the intent of the previous action of the Board not to resume publication unless cleared by the Board and Publishing Committee. Considerable discussion ensued. The action of the Board taken in its July 9, 1961 meeting was reviewed. It being considered "unclear," the Public Relations Committee appealed to the Board to issue a clear directive either to continue or discontinue Personal Reporter. This was done by mail vote of the Board membership, sixteen voting in favor of continuance, five disapproved and one did not vote. No further action taken.

PUBLISHING COMMITTEE

House of Delegates Proceedings

Summary — Budget

Dr. Neubauer sought permission of the Board of Directors to include not only the resume of

the action of the House of Delegates, as submitted, but also the included budgets.

It was moved by Dr. Neubauer and seconded by Dr. Beaton that permission be granted to publish the budget in *Arizona Medicine*. Eight members voting in the affirmative and four in the negative, the motion carried.

SCIENTIFIC ASSEMBLY COMMITTEE

1963 Annual Meeting Location

On motion regularly made and carried, accepts recommendation of the Scientific Assembly Committee that the 1963 Annual Meeting of this Association be held at the Pioneer Hotel, Tucson, April 30 through May 4, 1963.

1966 Diamond Jubilee

On motion regularly made and carried, authorizes appointment of a special committee to be commissioned to prepare the history of Arizona medicine for presentation at the 1966 Diamond Jubilee meeting of the Association, the committee to have authority to explore the cost of employment of a professional historian to assist in this endeavor.

Technical Exhibits

It was moved by Dr. Smith, seconded by Dr. O'Hare and carried that the Physicians and Surgeons Underwriters Corporation of Minneapolis, Minnesota, be denied the privilege of exhibiting during the 1962 Annual Meeting of this Association.

COMMUNICATIONS

1961 Physicians' Award

As reported earlier in this meeting, no specific recommendation has been filed to date in nomination of a candidate for the 1961 Physicians' Award sponsored by the President's Committee on Employment of the Physically Handicapped.

Maricopa Bureau of Medical Economics

Case involving dispute over professional fees reviewed. No action indicated.

West Virginia — Resolution —

Aid to Cuban Medical Colleagues

Resolution submitted by the West Virginia State Medical Association to the AMA House of Delegates in Denver, in the interest of suggested aid to Cuban medical colleagues.

Hudson County Society — Resolution — ACS

Resolution passed by the Hudson County (New Jersey) Medical Society to the effect that the American College of Surgeons instruct its Secretary General to cease and desist from his repeated unwarranted and unfounded attacks

upon the practice of surgery in these United States.

Inasmuch as this matter and the resolution of West Virginia on Cuban medical colleagues had been considered by the AMA House of Delegates in Denver and disposed of, no further action is indicated.

Arizona Pharmaceutical Association — Prescriptions

Arizona Pharmaceutical Association reports rumor that a Texas pharmaceutical company is approaching physicians to prescribe their products for which they will receive percentage according to amount prescribed; further, that the physician is offered stock in the company at fantastic returns. It is the hope both pharmacy and medicine in Arizona will take such action as deemed advisable to prevent such an unsavory situation from occurring here. Forward to Journal for comment.

University of Arizona — Historical Development

Bernard L. Fontana, Field Historian, University of Arizona, by letter dated November 8, 1961, reports greatly expanded program in the field of history and establishment of the Arizona Collection for Western and Borderlands Research. Inquiry is made whether the University of Arizona Library might be considered as a potential repository for records of this Association when such records are otherwise ready for retirement from active files.

Referred to the History and Obituaries Committee for comment.

OTHER BUSINESS

Medicine and Surgery Act

Dr. Dysterheft reviewed the study and research undertaken by the Board of Medical Examiners, of which he is a member, referable to a complete revision of the Medicine and Surgery Act and all its ramifications and complications. It is now in position to present a proposed draft of the results of its many deliberations and seeks a meeting first with a designated committee of the Board of Directors, the Executive Committee or some other group of its choice, to review, with the Board of Medical Examiners, its conclusions and recommendations. Thereafter, a meeting with the full Board of Directors is indicated. Thursday evening, January 18, 1962, is suggested as the time most agreeable to the members of the Board of Medical Examiners at the joint headquarters offices in the U-R Building, Scottsdale. It was pointed out that

following joint mutual agreement of the proposal, it will then become necessary for counsel of both the Association and the Board of Medical Examiners to prepare the legislative draft which, it is the hope, will be completed and ready for introduction during the first regular session of the Twenty-Sixth State Legislature in 1963. The Board of Directors, on a previous occasion, has indicated its approval of having its counsel assist in the final preparation of any amendment proposed.

It was determined on motion regularly made and carried that Drs. Lindsay E. Beaton (Tucson), as Chairman, Jesse D. Hamer (Phoenix), and William B. Helm (Phoenix), will constitute the membership of an ad hoc committee on the Revision of the Medicine and Surgery Act of Arizona who will arrange to meet with the Board of Medical Examiners January 18, 1962 at the place designated to commence deliberations on the proposed amendment of the Medicine and Surgery Act and report to the Board of Directors in due course.

Project Hope

Several weeks ago the Governor of this State, through his Administrative Assistant, Mr. John McGowan, sought information as regards "Project Hope." He had been appealed to, to serve as honorary chairman of a fund raising drive. Such campaigns are being proposed to be conducted in the forty-eight United States in the hope that monies may be raised to outfit a second ship, S. S. Hope No. 2, for service in the area of the South American countries. It is a training ship to be manned by doctors of medicine, nurses, technicians, etc., sailing on a free-will mission to bring to backward areas modern medical science and through training of the natives, better equip them to meet the everyday medical and health challenges. Contact with AMA indicates continuing approval. March 27, 1962, at Westward Ho, Phoenix, is the time and place selected for the proposed \$100.00 per plate dinner, estimating attendance at about 1,000.

Bruce J. Ellis, Director, The People to People Health Foundation, Washington, D. C., has been in touch with the Central Office seeking suggestions as to the name or names of a potential general working chairman to work with the Governor and Medicine in this State, which could be a community leader or doctor of medicine.

By motion regularly made and carried it was determined to endorse this program, without

Arizona Medical Association Reports

obligation as an Association, indicating we will aid the Governor in any personal way to assist him in the selection of a working chairman.

1962 Community Service Award — A. H. Robins Co.

The A. H. Robins Company, Inc., of Richmond, Virginia, announces its intention to continue its Community Service Award in 1962 and solicits this Association's participation. In 1961, Delbert L. Secrist, M.D. (Tucson), was the first recipient of the award following inception by the Robins Company.

It was moved by Dr. Beaton, seconded by Dr. Dudley and unanimously carried that we participate and select our candidates the same way that we did it last year.

DELEGATES TO AMA REPORTS

Dr. Hamer reported that the summary report of the proceedings of the AMA Clinical Session recently concluded in Denver will appear shortly in AMA news for the edification of all the members. He mentioned Dr. Beaton had his first introduction to service on the important AMA Reference Committee on Legislation and Public Relations and, as would be expected, "served well in the typical Beaton fashion."

AMPAC

Dr. Beaton reported in full regarding the organization AMPAC — American Medical Political Action Committee — the AMA House of Delegates has given approval, stating that effective political action must be carried out at the local level and effective implementation must be done by local groups of physicians.

It was moved by Dr. Beaton, seconded by Dr. Smith and carried that the Executive Committee of ARMA be instructed by this Board to set up an Arizona Medical Political Action Committee, to appoint its Board of Directors, and to provide, on a loan basis, such money as may be necessary to start its functioning; further, that information be obtained from legal counsel as to limitations set on the liaison between ARMA and such a PAC by the Federal Corrupt Practices Act, and the restrictions set on the political activities of individual physicians by the Hatch Act; further, that Arizona Medicine be requested to publish, for the information of the profession-at-large, an account of the prohibitions of the Hatch Act that affect physicians employed in any way by the Federal Govern-

ment or by State, County or Municipal agencies receiving Federal funds.

Dr. Beaton suggested that it would be very helpful to the Delegates if the Board of Directors met annually just before the AMA Clinical Session (it does meet before the Annual Meeting) in order that they may receive instructions and thereby be better able to express its views and vote in accordance with the will of the Association.

Report of President-Elect

Dr. Yount reported on his experiences and evaluations of attendance at meetings of the AMA Council on Medical Education and Hospitals and the AMA House of Delegates, both held in Denver recently. It was his conclusion that there is merit in having the officers attend these Annual Meetings as he felt enriched in the knowledge of conduct of medical affairs on the national level. Possibly, the officers should alternate in attendance of the AMA annual and clinical mid-year sessions.

Arizona State Board of Public Welfare Medical Care for Old Age Recipients

Dr. Smith continued discussion of the problem reviewed this morning referable to medical care for old age recipients and especially the proposal to be offered by the Blue Plans to the Arizona State Board of Public Welfare. Considerable discussion ensued. Every phase of the suggested proposal was explored. The final details and offer must await the completion of studies now going on by the actuaries; however, this will be completed the early part of next week. It was again pointed out that the proposal contemplates "emergency" care only.

It was moved by Dr. Smith, seconded and carried that we endorse "in substance" the proposal of the "Blues" as outlined this morning. It is to be understood in adopting this motion, endorsing the proposal "in substance", that in no way can we (the Board of Directors) obligate our individual members to this particular proposal. This would require action of the House of Delegates.

Professional Corporation Legislation

Discussion ensued as regards a legislative measure being considered which provides for "professional corporation" having as its basic concept the right of the self-employed to provide for his or her self a retirement plan. While numerous attempts have been made on the Federal

Arizona Medical Association Reports

level to enact the Simpson-Keogh bill which would have the same effect and it has passed the House on at least two occasions, it has failed passage in the Senate. Such measure, having passed the House, is again before the Senate and may be considered in the new year.

It was moved by Dr. O'Hare, seconded by Dr. Dysterheft and carried that we stop work on this item (discontinue all action on professional corporation legislation); that we instruct our counsel not to proceed on our behalf on this bill until it has been referred to the Legislative Committee and approved by the Board of Directors.

Report of the President

Dr. Smith reported that so far this year he had visited Gila, Coconino and Yavapai County Medical Societies; was guest speaker before the Arizona Hospital Association; appeared before the Welfare Board at Prescott, September last; the Licensed Practical Nurses Association in Yuma and the next day spoke before the Arizona State Student Nurses Association in Tucson on socialized medicine as it relates to medicine; spoke before the Arizona Nurses Association in Chandler, November last; attended the meetings of the Arizona Chapter - American College of Surgeons and the Arizona Pediatrics Society; and most recently spoke before the Association of American Public Relations Executives. It has been an interesting experience.

Kerr-Mills Legislation

Dr. Hamer presented for discussion the matter of the present failure to carry out the wishes of the House of Delegates which body strongly urged implementation of the Kerr-Mills bill in the Arizona Legislature this coming session. While it was pointed out much had been done in an effort to achieve this objective, to date the Arizona State Welfare Board has not seen fit to act. It was early considered appropriate and considerably less costly to the Association to have that body initiate the drafting of such measure amending its complicated operational statutes. Possibly, it will act upon the "Blues" proposal discussed today.

It was moved by Dr. Smith, seconded by Dr. O'Hare and carried that if the Arizona State Welfare Board does not take action on the Blues proposal, or any other similar action to implement the Federal Kerr-Mills Legislation, that counsel be authorized to prepare an appropriate Memorial measure for introduction in the Legis-

lature this forthcoming session asking the State Legislature to take action thereon.

MEETING ADJOURNED AT 5:45 P.M.

Paul L. Singer, M.D.
Secretary

MEDICAL ECONOMICS COMMITTEE

A meeting of the Medical Economics Committee of The Arizona Medical Association, Inc., was held December 7, 1961, Ian M. Chessser, M.D., Chairman, presiding.

OLD BUSINESS

Valley Produce Growers Insurance Program for Mexican National Agricultural Workers

Discussion was held appertaining to the problem of the insurance program for Mexican national agricultural workers so engaged in Arizona, for the Valley Produce Growers underwritten by Continental Casualty Company through Pan-American Underwriters, directed to the attention of the Association by Doctors Augusto Ortiz and Carlos V. Greth.

It was determined that Doctor Herzberg would contact Doctor Greth for the current status of the problem aforementioned and in the event no solution has been reached to date, Doctor Herzberg and Doctor Greth are to arrange a meeting with officials of the Valley Produce Growers Association and Pan-American Underwriters, to include the President of the Association, Doctor Leslie B. Smith, in an attempt to effect an adequate solution.

Investment Program — J. Merle Lemley — Unified Retirement Investment Trust

The Committee reviewed the Unified Retirement and Investment Trust Program (in line with Keogh Legislation) offered by J. Merle Lemley, Consultant Services of Denver, Colorado.

No action was taken in that it was determined to await the results of both national and state legislative programs anticipated in 1962.

NEW BUSINESS

Professional Corporation Legislation

The Committee reviewed an AMA developed and suggested legislative measure for Professional Corporations, including doctors of medicine, attorneys at law, dentists, accountants, etc., and was advised of the legislative program proposed

Arizona Medical Association Reports

to be initiated in the State of Arizona. Considerable discussion was held.

The Medical Economics Committee strongly recommends to the Board of Directors that every avenue be investigated to the end that such measure (Professional Corporation Legislation) be introduced and enacted by the (Arizona) State Legislature during the forthcoming second regular session.

California's Stockton Plan for Medical Care

At the request of the President, Leslie B. Smith, M.D., the committee reviewed an article appertaining to the adoption, by the Honolulu Medical Society, of California's Stockton Plan for medical care.

The committee determined the program was identical to that of the San Joaquin (California) Medical Care Program which is currently under review by the Executive Committee and Board of Directors of The Arizona Medical Association, and Arizona Blue Cross-Blue Shield in their efforts to establish an insurance program for the United Mine, Mill and Smelter Workers for the Kennecott Copper Corporation. While Blue Cross-Blue Shield has an established professional committee for the purpose of reviewing claims in dispute which is successfully functioning, each and every claim is not reviewed for the purpose of determining diagnosis in the light of essentiality and possible over-utilization. The latter, it is understood, is the Stockton Plan. It is the opinion of the Committee that the doctor-patient relationship should be maintained without intervention of a third party. No action was taken.

ARMA Resolutions

Adopted by the House of Delegates 4/28/61

Resolution No. 1 — Social Security and the Physician

The Medical Economics Committee is in accord with Resolution No. 1 entitled, "Social Security and the Physician" which was adopted by the House of Delegates of The Arizona Medical Association, Inc., in meeting held April 28, 1961, and recommends that the members of the Association continue to stand up and be counted and strongly oppose physician participation in the social security program.

Resolution No. 2 — Keogh-Simpson Legislation and other Voluntary Retirement Programs for the Self-Employed

The Medical Economics Committee is in ac-

cord with Resolution No. 2, Keogh-Simpson Legislation and Other Voluntary Retirement Programs for the Self-Employed, as adopted by the House of Delegates of The Arizona Medical Association, Inc., in meeting held April 28, 1961, and strongly suggests that members of the Association continue their support for Keogh-Simpson tax legislation and all other similar efforts to provide all self-employed individuals, including physicians, nurses and other segments of the medical profession, with the opportunity to save and plan for their own retirement.

Resolution No. 3 — All Federal Legislation Proposing Health Care Under the Social Security System and Any Other Type of Socialized Medicine Measure.

The Committee reviewed Resolution No. 3 adopted by the House of Delegates of The Arizona Medical Association, Inc., in meeting held April 28, 1961, in opposition to any and all Federal legislation proposing health care under the social security system or any other type of socialized medicine measure, concurring in the thoughts expressed in such resolution and urging the membership to continue their efforts in this matter, and support implementation of the Kerr-Mills approach to the solution of the problem.

Resolution No. 4 — Voluntary Health and Accident Insurance Programs to Cover the Health Needs of Senior Citizens and other Segments of the Population.

The Committee reviewed Resolution No. 4 appertaining to Voluntary Health and Accident Insurance Programs to Cover the Health Needs of our Senior Citizens and other Segments of the Population, adopted by the House of Delegates of The Arizona Medical Association, Inc., in meeting held April 28, 1961, urging reaffirmation of its support of the principal of privately administered, legitimate, voluntary health, accident and disability insurance programs to cover not only the 65 years and older segment of our population, but all segments of our population. It is suggested that county welfare plans be encouraged to use "insurance" as a mechanism of coverage.

Resolution No. 5 — Kerr-Mills Bill and Similar Legislation to Provide Health Care for the Needy Aged

The Medical Economics Committee reviewed Resolution No. 5 entitled, "Kerr-Mills Bill and Similar Legislation to Provide Health Care for

the Needy Aged, adopted by the House of Delegates of The Arizona Medical Association, Inc., in meeting held April 28, 1961, and strongly recommends to the Board of Directors of The Arizona Medical Association, Inc., that they continue support of Kerr-Mills Legislation and urge its implementation by the Legislature of the State of Arizona.

Resolution No. 6 — Distribution of Resolutions 1, 2, 3, 4, 5 and 13

The Medical Economics Committee reviewed Resolution No. 6 regarding distribution of actions of The Arizona Medical Association Inc., relating to endorsement of the Kerr-Mills Bill, Voluntary Health and Accident Insurance Programs, Keogh-Simpson and other Self-Employed Retirement Plans, and opposition of The Arizona Medical Association, Inc., to all Federal legislation, seeking to socialize the practice of medicine and the compulsory inclusion of physicians under the social security system.

It wishes to express its commendation to the Executive Committee of the Board of Directors of The Arizona Medical Association, Inc., for the results of its efforts in such distribution.

United Mine Workers of America — Welfare and Retirement Fund

At the request of the President, Leslie B. Smith, M.D., the committee reviewed a request of the United Mine Workers of America, wherein it came to the attention of the Association that only certain doctors of medicine were recognized in the treatment of patients, employees and their families associated with their insurance program and reviewed a response thereto over the signature of William A. Dorsey, M.D.

It is noted that Doctor Dorsey indicates it is not the policy of the United Mine Workers of America — Welfare and Retirement Fund to provide such lists; that there are very few beneficiaries of the fund who reside in Arizona; and that the beneficiaries of the fund in Arizona have been receiving a superior quality of medical care.

The Medical Economics Committee recommends to the Board of Directors that it request and urge Doctor Dorsey for complete information on the plan, a list of recognized Arizona physicians, and particularly seek information as to how care is derived in emergencies covered by the program; further apprising Doctor Dorsey that this Association wishes to adhere to the

principle that a patient may, under any program, select his or her own physician in line with "free choice".

Foundation for Medical Care of San Joaquin County, California

Basic Standards for Foundation Sponsored Major Medical Group Programs

Reviewed program along with discussion on California's Stockton Plan for Medical Care previously reported.

Minnesota Plan — Physicians and Surgeons Underwriters Corporation

The committee reviewed its previous recommendation to the Board of Directors that it was continuing investigation of the Minnesota and other Plans and that the Physicians and Surgeons Underwriters Corporation be encouraged to sell their coverage in the State of Arizona on an individual basis in the interim. This was disapproved by the Board of Directors in meeting held April 26, 1961, pending completion of the investigation.

It appears that such investigations have been completed and the committee requests permission for the Chairman, Ian M. Chesser, M.D., together with Thomas K. Scalen, President, Physicians and Surgeons Underwriters Corporation, to appear before the Board of Directors at its next meeting to present the latter's program for consideration.

It was likewise suggested that approval of the request of the Physicians and Surgeons Underwriters Corporation to present a technical exhibit during the 1962 Annual Meeting of The Arizona Medical Association, Inc. be recommended, contingent upon the approval and acceptance of the program by the Board of Directors.

ARMA House of Delegates — Resolution No. 8

The committee reviewed Resolution No. 8, studying, reporting and recommending to all members of The Arizona Medical Association, Inc., an actuarially sound program to combine medical student loan and voluntary physicians disability and retirement plan under one fund, as adopted by the House of Delegates of The Arizona Medical Association, Inc., in meeting held April 28, 1962.

The Medical Economics Committee feels the program, as presented, should first be investigated as to its actuarial soundness, deferring action and awaiting the results in 1962 of proposed na-

Arizona Medical Association Reports

tional legislation such as the Keogh-Simpson law and Professional Corporation legislation enactment in the State of Arizona. It was reported that the Benevolent and Loan Fund Committee is continuing its investigation with Valley National Bank as regards student loan financing.

ARMA House of Delegates — Resolution No. 6

The Medical Economics Committee considered a proposed amendment to the By-Laws of The Arizona Medical Association, Inc. (Resolution No. 6), Chapter VII, Section 4(a) of the By-Laws, referred to it by the Board of Directors in meeting held May 21, 1961 for review, study and recommendation.

Following due deliberation and much discussion the committee feels that Doctor Holmes' amendment is not appropriate at this time, due to the multiplicity of fund raising campaigns now going on and others anticipated in the near future; other assessments currently effected involving dues increases on the national, state and local levels; the possibility of enactment of Professional Corporation legislation within the State; the possible enactment of Keogh-Simpson legislation on a national level; and the possible conflicts with the Articles of Incorporation dealing with the Association's tax exempt status should be program of further dues assessment proposed for membership disability and retirement benefits be effected.

Physicians' Standardized Report for Health Accident Claims — Medical and/or Surgical Benefit Assignment Supplement

The Medical Economics Committee received a letter dated May 29, 1961, over the signature of Robert E. T. Stark, M.D., requesting consideration of a supplement to the current approved standardized statement for health and accident claims, effecting a medical and/or surgical expense benefit assignment.

The Medical Economics Committee following such review, suggests to the Board of Directors that it sees no objection to such assignment form being attached to the current Physicians' Standardized Report for Health and Accident Claims,

but only if such be included as a separate portion thereof.

Equitable Insurance Co. of New York Refusal of Payment for Neurological Consultations

This item of business was referred to the Chairman, Ian M. Chesser, M.D., for consultation with Doctor Beaton, a supplemental report to be made to the committee at its next meeting.

Pan American Life Insurance Program — Proposal for Retired Physicians on Group Basis

The committee determined to defer action on any proposals referable to retirement programs awaiting the results of anticipated national and state legislation. The Chairman, Ian M. Chesser, M.D., and James E. O'Hare, M.D., were selected for a subcommittee of two, to review the following items of business, reporting thereon at the next meeting of the Medical Economics Committee.

1. "Society Develops Patient Loan Plan (AMA News 10/2/61)
2. Pacific Health Plan.
3. Wisconsin Insurance Department Questionnaire, Study of Standard Hospitalization Insurance)

MINE, MILL AND SMELTER WORKERS — KENNECOTT COPPER CORPORATION

Reviewed were the comments of L. Donald Lau, Executive Director, Blue Cross-Blue Shield Plans, contained in a letter dated December 11, 1961, addressed to Doctor Chesser, together with content of letter dated December 6, 1961, Lewis G. Hersey to Edmund J. Flynn, with proposal for a program of hospital-surgical-medical benefits for employees and dependents of Kennecott Copper Corporation, represented by the International Union of Mine, Mill and Smelter Workers. No action is indicated; however, Doctor Chesser expressed his displeasure in the manner of handling the problem and particularly the absence of answers to the several questions contained in his letter, the results of deliberations in conference meeting held previously.

Paul L. Singer, M.D.
Secretary

With a total enrollment of 157 students in 1960-1961, The University of Arizona School of Nursing was granted accreditation by the National League for Nursing in May of this year.

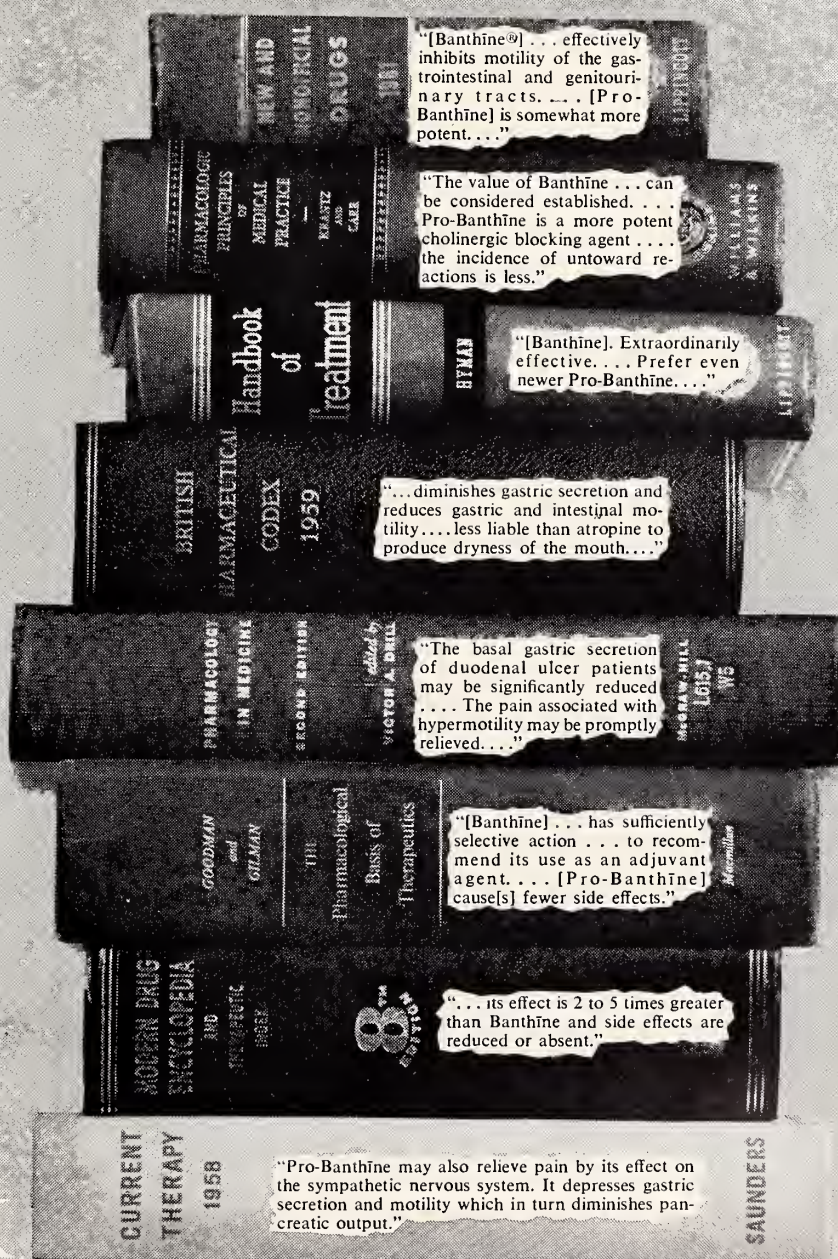
by
the
book

PRO-BANTHINE®

(brand of propantheline bromide)

G. D. SEARLE & CO., CHICAGO 80, ILLINOIS

Research in the Service of Medicine



“The first prescription I ever wrote
was for ‘Empirin’ with Codeine...



and it is still my stand-by
for pain relief today.”

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

*Remember there are now
four strengths available...*

*Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.

No. 1 — gr. ¼
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

blood pressure approaches normal more readily, more safely.... simply with **Salutensin[®]** (hydroflumethiazide, reserpine, protoveratrine A—antihypertensive formulation)

Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"¹) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents²⁻⁸ provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron[®] (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide⁹; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide/rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron[®] (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

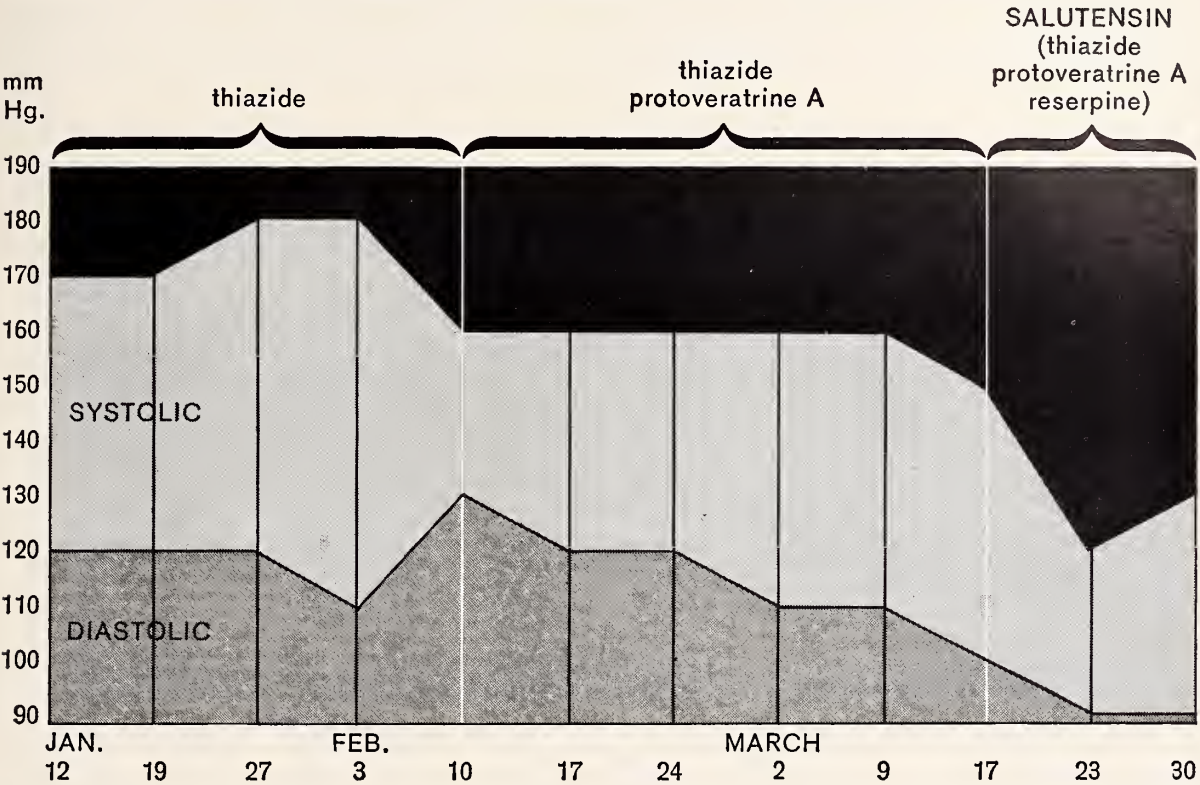
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide-rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

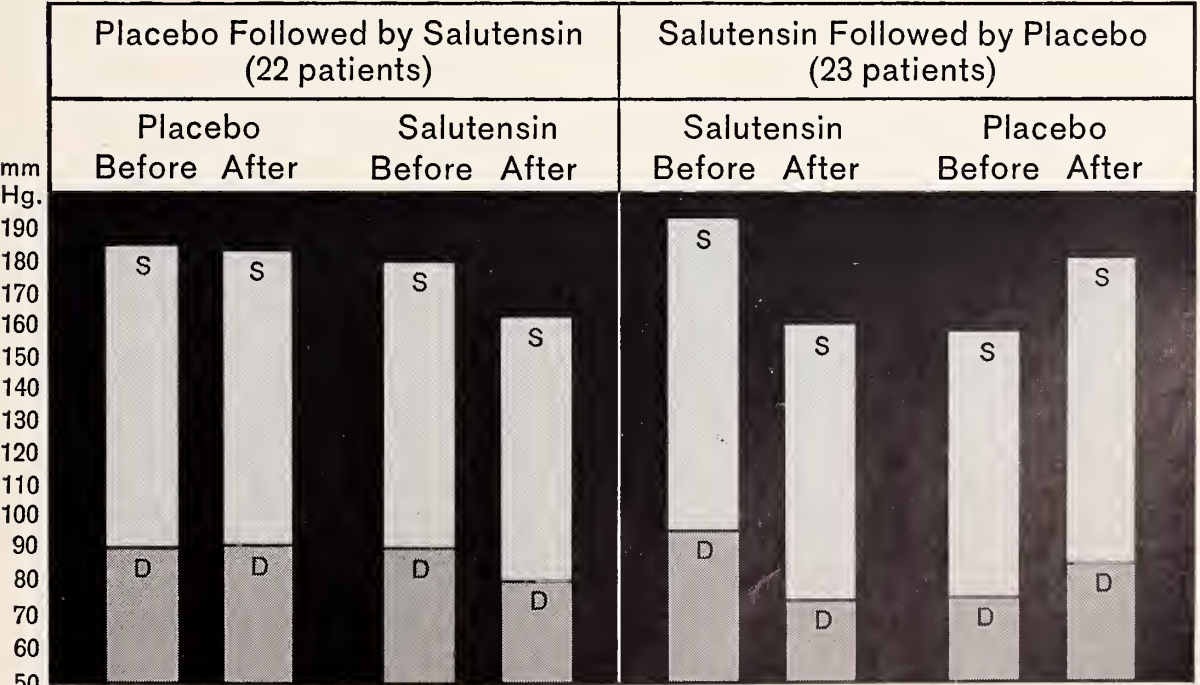
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures—Systolic (S) and Diastolic (D)

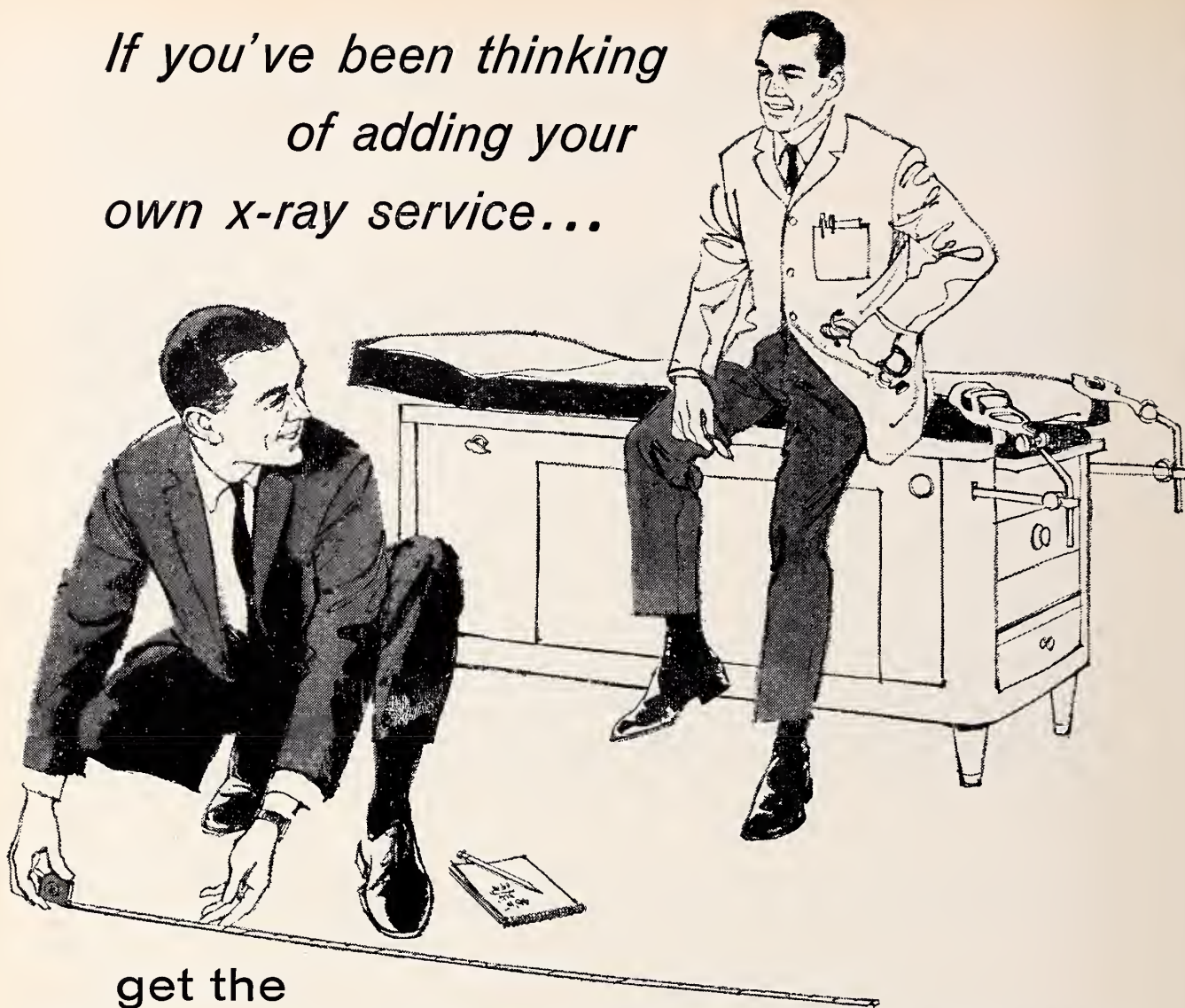


In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.



*If you've been thinking
of adding your
own x-ray service...*



get the
PRACTICAL FACTS
from your G-E man...

His kind of help really pays off: your G-E representative takes the exact measure of all your needs and comes-up with balanced x-ray recommendations and realistic figures. He weighs the nature of your individual situation, patient schedules, space problems and a host of related factors, before developing proposals.

Ask him questions uppermost in your mind, whether they concern a new G-E Patrician x-ray unit, or the appropriate film-processing and reading facilities. He has answers right

at his fingertips. Years of specialized experience let him help make the most of just a *modest investment*. Phone or write today, for his obligation-free survey of your needs.

• **MAXISERVICE®** X-Ray Rental can offer you an ideal alternative to outright purchase! Your G-E man will show you how it provides equipment of your choice *without downpayment*, for a modest monthly fee. Included are maintenance, parts, tubes, insurance, and paid-up local taxes. Also simplifies your income-tax problems. It's the easy way to have "pay-as-you-go" x-ray!

Progress Is Our Most Important Product

GENERAL  ELECTRIC

CONTACT OUR DIRECT FACTORY BRANCH IN

PHOENIX

821 W. Adams St. • ALpine 4-0181

Schering

when "flu" strikes

relieve **U. R. I.** distress rapidly

- relieve sneezing, runny nose
- ease aches and pains
- lift depressed feelings
- reduce fever, chills

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

Rx

CORIFORTE[®]
(Brand of Analgesic-Antihistaminic-Antipyretic Compound)
capsules

Each CORIFORTE Capsule contains:
CHLOR-TRIMETON[®] 4 mg.
(brand of chlorpheniramine maleate)
salicylamide 0.19 Gm.
phenacetin 0.13 Gm.
caffeine 30 mg.
methamphetamine hydrochloride 1.25 mg.
ascorbic acid 50 mg.

available on prescription only



an excellent drug

“Based both on laboratory studies and clinical impressions, it [Cordran] appears to be an excellent drug for the relief of cutaneous inflammation, possibly more effective than any steroid we have hitherto used.”

—Rostenberg, A., Jr.: Clinical Evaluation of Flurandrenolone, a New Steroid, in *Dermatological Practice*, J. New Drugs, 1:118, 1961.

A look at the products

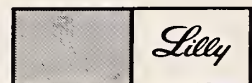
Cordran cream and ointment are new corticosteroid preparations especially formulated for the skin. Each Gm. contains 0.5 mg. Cordran.

Cordran™-N cream and ointment combine Cordran and the wide-spectrum antibiotic, neomycin. Each Gm. contains 0.5 mg. Cordran and 5 mg. neomycin sulfate (equivalent to 3.5 mg. base). Cordran-N is particularly useful in steroid-responsive dermatoses complicated by potential or actual skin infections.

All forms are supplied in 7.5 and 15-Gm. tubes.

Cordran™-N (flurandrenolone with neomycin sulfate, Lilly)

Product brochure available; write Eli Lilly and Company, Indianapolis 6, Indiana.



This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.

240207

Middle Age Fitness

Paul Dudley White, M.D.

Here is an extraordinary document that ARIZONA MEDICINE is proud to publish. One immediately grasps the admonition, "Never mind the fine writing. Say what you have to say!" Dr. White's simple, forthright declaration of personal experiences and his opinions derived from a half century of study and astute observation warrant the recognition of this paper as one of the classics of American medical literature.

IN THE first place, I want to express my appreciation for your invitation to visit this very fine countryside. Despite the cloudy skies this morning, I have enjoyed my three days in the State, two of which were quite sunny — two days in Tucson, and one day yesterday on the Papago Reservation, where I had the opportunity to see some of the Indians. I was feasted on the entire spectrum of carbohydrate food available in the desert, with a little extra brought in. We had cactus and corn and beans and peppers and wheat and a little dried venison and beef. There was very little fat in which one dish was fried.

We saw a good many fat Papago Indians; their obesity is probably due to a surplus of carbohydrate calories. I was shown only one coronary patient but I didn't hunt very hard. I suppose that there may be others. This man was the chief of the tribe, and he seemed in good health when I saw him yesterday, having been quite well rehabilitated. I listened to his heart — incidentally, I listened also to the heart of the medicine man, much to the surprise of my colleagues. I found his heart in quite good condition. And then he was asked to examine me. His examination was brief — he just "saw" through me. He held his hand out and subjected my precordium to his penetrating glance. That was his diagnostic technique. He asserted that my heart was quite good. We then suggested that he should call the white doctors in that part of the country more often in consultation. With the opening of the beautiful new hospital at Sells about to take place, he was duly impressed by this suggestion. There was an excellent autopsy room there, and we spent quite a little time looking it over. If they

can embalm the bodies right there they will not need to send them to Tucson, and I think that we shall get more autopsies.

The Indian chief had diabetes; perhaps that's one of the reasons he has coronary heart disease. However he is overweight and I warned him about that. Also he uses his car whenever he can. I am sure that there would be a chance for an interesting epidemiological research in the Reservation. It may be a little difficult to be sure of the diet, but it could be done and it would be worth while to make such a study there in a little more detail than those that have been made before in other such places. Many of these Indians are well nourished but apparently mostly on carbohydrate foods.

Now, if I may be personal for another minute or two before I take up the particular subject of the day which is a very important one, I'd like to comment in the introduction of my subject on some of my past clinical researches from a vantage point of nearly fifty years of study and observation in the cardiovascular field. There have been a good many precise and detailed results embodied under such titles as "Alternation of the Pulse, a Common Clinical Condition" published back in 1915. I thought that that was a rather important paper following a few years after Thomas Lewis' more historic paper on "Auricular Fibrillation, a Common Clinical Condition"; my title more or less aped his. And I still think that alternation of the pulse is a very important clinical condition. It is still much neglected. It was a good many years ago that I felt that this was so — and I still feel it. Then in 1916 there was a paper that presented in detail the anatomy of the A-V conduction of the sperm whale's heart. This antedated my whaling

Address presented at the Fourth Annual Cardiac Symposium, Arizona Heart Association, Arizona Biltmore Hotel, Phoenix, Arizona, January 27, 1961.

Original Articles

experiences by a good many years, as you can see. Another paper was entitled "Bigeminy in A-V Nodal Rhythm." I went up to the Peter Bent Brigham Hospital to give that, because this was an example of the very interesting electrocardiographic technique of the day. It was a new subject, and I felt that I must present something very new at the new Peter Bent Brigham Hospital. Then there was chronic constrictive pericarditis in the late 1920's, when Dr. Churchill did the first successful resection of the pericardium in the U. S. A. We followed that up for a good many years. And there were the W-P-W syndrome, the common occurrence of pulmonary embolism, the acute cor pulmonale, and the speed of healing of myocardial infarction in the 1930's and many previously neglected follow-up studies of various types of heart disease in the 1940's and 1950's with some epidemiological research beginning. I personally believe that I have served a greater usefulness by introducing certain broader concepts, usually based on the more specific researches already mentioned and presented under such titles as, "The Classification of Cardiac Diagnosis," in 1921. That at the time was very new — but it isn't new any longer, of course. Cardiac diagnosis usually was made at that time based on structural change and somewhat on functional conditions which Mackenzie had initiated in large part. I suppose that this paper has been my most important contribution. It was the basis of my book published ten years later. A second fundamental paper entitled "Optimism in the Treatment of Heart Disease," was presented in Memphis, Tennessee, in 1932. I went back there 27 years later, a couple of years ago, and said that I was still more optimistic than I had been in 1932. This was the time in 1932 when we were beginning to see the favorable results, and more or less spontaneous recovery, from such cardiac involvement as coronary thrombosis occurring in the 1920's when it was supposed to have been quickly fatal, or at best allowing survival for only a few years. Three years was the maximum duration of life "allowed" in the 1920's, and if anybody survived more than three years the diagnosis was said to have been wrong. That was true also of angina pectoris. "If you got over angina pectoris, the diagnosis must have been wrong." Then in the 1940's, I published a paper entitled "The Reversibility of Heart Disease," and in the 1950's, "The Rehabilitation of the Cardiac Patient." And

somewhere along the line, there was a paper on the health of the physician; I think it was entitled, "The Physician Himself." I felt then, as I do now, that more should be done about the health of the physician himself by the physician himself, who has not very often set a good example in his own health. I think that one might repeat such advice though perhaps in a different sense. It has been said by my colleague, Dr. Howard Sprague, that when I wrote that paper I was rooming with him in Atlantic City, and I got up at 4 o'clock in the morning to write it, advising doctors not to work so hard. Incidentally, I may add that I got up this morning at 5:30 to add these introductory remarks. These first remarks that I have started with are not what I intended to say yesterday. I am now convinced as I wasn't 20 or 30 years ago that it isn't hard work, physical or mental, that wears you down — in fact, I am sure they are both essential in the program of positive health — it is other things and habits that are to blame.

VITAL TITLE

And now let me say in final introduction (these are notes I made this morning) that I personally believe that my title today is one of my most vital ones, namely, "Middle Age Fitness." I hope I haven't taken up too much of my time already. But this opportunity that I have this morning to continue to urge a national drive or campaign for middle age fitness so notoriously lacking in this country today is one of my great desires. It's of course just as vital, as all of you recognize, as youth fitness and the problems of old age . . . really more so. There are various starts being made here and there. For example, I went to a meeting in Rochester, New York, a few weeks ago in which the whole community had begun to set itself an aim to change the ways of life more adequately in order to improve the status of health of everyone beginning with getting children to walk to school again, safely of course. The YMCA, with which I have been connected for a good many years, is planning to add to its activities a physical health program extending into the 20's. For many years I was connected with Camp Becket and still collaborate with that YMCA Camp in the Berkshire Hills where a fine program has been set every summer for 250 boys up to the age of 18. There is quite a gap between 18 and the 30's or 40's when the young to middle-aged man realizes, or his wife realizes, that he is getting fat

and slowing down and that he had better be getting back to the gym and otherwise modify his habits. The vital years are those in between 18 and 30. I am absolutely sure from what I have seen of the pathology of the arteries themselves, that these years are the critical ones. Middle age fitness is probably more dependent on the habits formed between the 20's and 30's than at any other time of life. Whatever habits have been formed in the 20's are likely to stick, not necessarily the habits you had formed when you were at the YMCA Camp at 15, 16, 17, or 18. but in the period following. Here we note the changing pattern of living habits concerned with college, military service, marriage, and business. Added to all this is the present day custom of being exposed at the age of 23, 24, and 25 to constant use of the automobile and to other mechanical devices, including the television and to the addition of more and more calories. Then our young man marries and is likely to have a wife who cooks too well. The wife has a role in this plan of middle age fitness in order to change or to establish habits of health for her husband in the 20's or 30's; and it is that period that I want to speak of.

Middle age I think should be considered as the period of life after adolescence and through maturity, to old age; that's a long span of life. For many people it is too short. Some individuals do get old, wrongly I think, at 50, 60, or 70. But my personal conviction after seeing many people through the years is that middle age ought to extend from 20 or up to 25 right on to the age of 80. I see no reason at all why one should feel necessarily old, even though it is commonly the custom, before 80, and so I am setting middle age from 20 to 80. Or we may want to put the upper limit higher still. That's my definition of middle age.

FITNESS

Then we come to the word *fitness*. What is fitness? Fitness I think is positive health, not just the absence of disease. That is one of the health factors that we in the medical profession have been rather negligent about. We are pretty good now in diagnosis, and in treatment, both medical and surgical. But that's not good enough. We've got to have positive health; and undoubtedly our way of life must have an influence on this positive health — not just on the presence or absence of disease.

How can we promote middle age fitness? In the first place, we can continue to hold the gains already made and we can increase our control of infections, including the common cold. When I was hardly able to speak at the opening of the European Congress of Cardiology in Rome early last September, I begged those famous cardiologists to do something, or stimulate somebody to do something, about the common cold as well as about heart disease.

Secondly, we can sharply decrease accidents, especially on the road. There are a lot of middle aged crippled people because of avoidable accidents at home or in industry or especially on the road.

Thirdly, we can reduce the heavy burden of mental disease. But these are, of course, general problems. We can all take some role in them.

There are many other challenges such as arthritis and crippling metabolic diseases, cancer, hypertension, and finally, the particular subject I want to speak of, namely serious atherosclerosis at too early an age. However I wouldn't want to abolish coronary atherosclerosis. It is a very good way to terminate life if it can be very sudden, a matter of seconds, at an old enough age after a life free of all illness. That's what we want to aim at, I think. In other words, we might prefer 100% mortality from cardiovascular disease under ideal circumstances.

Most important, we want to establish in youth, especially in the 20's, habits of positive health which will without question greatly improve fitness, not only in middle age but in old age, too. Many of the problems of old age will melt away if we can improve middle age fitness.

Now, let me concentrate on atherosclerosis, which is in the U. S. A. today the most common cause of death, either sudden or not so sudden. At the age of 40 years, this condition should not be labeled simply as a sign of "aging." It is a real disease, preponderantly one of prosperous people who haven't yet learned how to control their prosperity. First I would like to read a couple of letters. One was, as a matter of fact, a tape recording that I made for WORL in Boston on December 13th. This was during the first blizzard of the season. Another storm was one last Friday that delayed me 25½ hours in getting to California. On Saturday morning I shoveled my wife's car out of a snowdrift at 4° below zero in order to get to the airport 25 hours late, and

Original Articles

then the plane, non-stop, had to come down in Chicago, because the snow hadn't all been cleared from the airport in Boston and hence we couldn't carry a full load of fuel with a shorter runway to take off from.

Well, as usual, there were a lot of warnings about not shoveling snow during that first blizzard in December. I was asked for a comment, and I presented the following: "Many men and women today, especially men, have diseases of the heart and arteries, either that they know of or are ignorant about because of failure of having had regular examinations and because of the almost universal presence of an important degree of atherosclerosis in their arteries, whether they know it or not. It is these individuals who succumb under any strain, whether it is running for a train, watching an exciting football game, at the game itself or on TV, or shoveling snow. Of course, it may be a little harder shoveling snow when it's colder, but not necessarily, because then the snow is lighter.

"It is this kind of an epidemic of disease of the heart and arteries and of sudden death so common in this country today that we must do something about. Stopping snow shoveling isn't the answer. But, of course, those who do have limitations because of diseases of the heart or arteries should not subject themselves to such heavy work as snow shoveling or other strains during a blizzard unless they have authorization from their doctors to do so or have been accustomed to that kind of exercise."

I was called up during the fall by a reporter who wanted a comment about a number of spectators who had died suddenly watching exciting football games. I made the same comments as applied to shoveling snow. We now are in the midst of an important campaign to try to prevent these happenings before the process starts, not late in the course of the disease, which was far-advanced in most of the people who died during the blizzard.

LETTERS

And here is a letter from someone in Brookline who wrote to me about that time: "Enclosed find a copy of 'Living to a Ripe Old Age.' I am now 83 years of age, and the Almighty has been good to allow me to live so long. Life to me is beautiful, and rain or shine it is at all times a grand privilege to be allowed still to enjoy it. I walk every day at least three miles, exercise

morning and night, play golf, and as General MacArthur said, 'Age may wrinkle the brow, but to give up your ideals in life wrinkles the soul.' As long as the Lord allows me to live I will always find time to give to the unfortunate a helping hand." And he enclosed a little clipping which said: "For living to a ripe old age, worry less, play more; ride less, walk more; frown less, smile more; eat less, chew more; waste less, save more; preach less, and do more." And I add, "camina mas Y comer menos" for those of you who know Spanish, this advice is needed in Latin America as well as here: "Walk more and eat less."

I have one other letter to read to you. In November I spoke in London to some executives on their health and one of them wrote to me later, as follows: "I heartily agree with the views expressed by the various speakers. Throughout my life I have taken regular physical exercise, and now, nearly 89, I still do so. Such exercise has consisted of outdoor sports, cricket until I was 18 and tennis for 43 years, and bowls ever since. In addition and even more important, it has been my invariable practice to walk to and from the business premises where I have been employed, about two miles away. I have found this particularly valuable after strenuous mental strain in the office. After this leisurely walk, I arrive home thoroughly rested." I recommend this too. Walking pumps more blood to the brain and that is what the stoic, that is, the promenading philosophers found years ago.

At this point a series of lantern slides were shown for ten minutes. These can be summarized as follows:

I began with photographs of Charles Thiery of Belmont, Massachusetts, taken at the age of 103½ when he was in perfect health, alert and active both physically and mentally, and of a letter that he wrote me at that time in excellent penmanship, concise, and interesting. He went on to live for another four years after that, quite active, never with any cardiovascular complaints although he had shown left bundle branch block ever since the age of 100 at which time his first electrocardiogram was taken. The bundle branch block had not altered during the last 7½ years which is another indication of the relative unimportance of bundle branch block per se except as an indication of slight difficulty in the past. He died finally of pneumonia ("the old

man's friend") in a complicated situation when he failed to receive enough antibiotic. Autopsy showed the heart in good condition with no myocardial infarcts and with only moderate coronary atherosclerosis. The reason that I showed these slides was to emphasize the fact that we doctors, in all probability, should be studying healthy old people 100 years old or more to try to determine the reason for their longevity as well as to study individuals who are half their age and sick.

Now as to some statistics, among 1,500,000 deaths annually in the U. S. A. today, over half are ascribed, and properly so I believe, to cardiovascular disease which is actually more vascular than cardiac. The heart plays second fiddle now to the arterial diseases, as does the brain also to a considerable extent. Over a quarter of all deaths are due almost certainly to atherosclerosis of these coronary arteries; and vascular lesions of other areas involving the brain and elsewhere account for another 200,000 deaths.

There aren't many other kinds of heart disease that cause high mortality. Two of the more common of these other kinds are hypertension and rheumatic heart disease but when added altogether they are less in numbers than those due to atherosclerosis of the coronary arteries. And it isn't a matter of old age either. Under the age of 65, there is still a high preponderance of deaths from cardiovascular disease as shown statistically. The majority of my own patients have coronary thrombosis in the forties and fifties and this is, of course, very much too young. Just the other day I saw a man aged 27 who happened to be a twin, a typical example of the American way of life. He was an athlete who, at the age of about 23, gave up practically all physical exercise because he said he was too busy, was married, and in the next four years put on 30 pounds in weight and smoked three packs of cigarettes a day. It must be that these incorrect ways of life played a role in his illness.

And now we come to the very important fact discovered in the last decade or two that atherosclerosis, although most commonly found seriously in the coronary arteries, is a common disease in other parts of the body too, involving the aorta itself, the carotid and vertebral arteries (responsible for many of the little strokes that we see), the iliac and femoral arteries crippling the muscles of the legs, in some instances the

renal arteries accounting for some of the high blood pressure we see, as from the Goldblatt clamp, and even the branches of the abdominal aorta, namely the coeliac axis and the superior and inferior mesenteric vessels responsible undoubtedly for some of the so called abdominal angina; in some cases there are serious results therefrom. Also, one of the most popular diseases of the day is that produced by arteriosclerotic aneurysms of the abdominal aorta, a dangerous malady that fortunately can not infrequently be cured surgically.

Now let me present for a minute or two the results of a study that we have made comparing at autopsy the coronary and cerebral circulations in Southern Japanese (Fukuoka) and in Boston. Our studies have indicated in a series of 350 autopsies in each place that coronary atherosclerosis is not only much more common early in life in the Boston series than in the Fukuoka series, but is much more severe. This is shown for example by the complication of acute myocardial infarction which involved 89 of the 350 cases in Boston and only 12 of the same number of patients in Fukuoka. We are now studying the cerebral circulation in the same way and although we find that hypertension is quite common in Japan, the degree of atherosclerosis of the internal carotid and vertebral arteries is much greater in Boston than in Japan. Why these differences exist, we must find out.

The last two slides present the problems as we face them for future research and they are reproduced here.

Table 1. Host: Basic factors behind coronary heart disease.

1. Race
2. Heredity
 - A. Physical characteristics
 - a. Body build
 - b. The coronary arteries themselves
 1. The wall itself
 2. The tree and its anastomoses
 - B. Chemical and metabolic
 - a. Diabetes
 - b. Hypercholesterolemia
 - c. Other
 - C. Nervous, mental and spiritual, including the sensitivity of the patient
Personality and character
3. Age
4. Sex
5. X

Original Articles

Table 2. Agent: Secondary or environmental factors behind coronary heart disease (the chief reason for epidemiologic research).

- | | |
|--------------------------------------|------------------------------|
| 1. Diet | 4. Social customs |
| A. Fats | A. Marital and family status |
| B. Proteins | B. Religion (e.g. fasts) |
| C. Carbohydrates | C. Social (e.g. siestas) |
| D. Total calories | 5. Toxic substances |
| E. Vitamins | A. Tobacco |
| 2. Physical activity or lack thereof | B. Alcohol |
| A. Work | C. Other |
| B. Exercise | 6. Parasites |
| 3. Stress and strain | A. Bacteria |
| A. The type of strain | B. Viruses |
| B. The degree of strain | C. Other |
| | 7. Climate and weather |
| | 8. Y |

In conclusion I am sure that we have a wonderful opportunity to carry on the most promising research on atherosclerosis, but meanwhile we should apply simple measures for positive health, not necessarily any fancy procedures like protecting everybody over 45 by anticoagulants. One doctor I know was very anxious to save the medical profession, so he suggested to all of his colleagues that they should begin to take anti-

coagulants at 45, whether they were well or not. I believe that it is much better to begin to do something in the 20's so that we won't have to give anticoagulants at 45. In other words, plain common sense can be applied. Therefore this idea of a campaign for middle age fitness may really pay off.

Thank you very much for your time and for listening to me.

NOTE: A Spanish language reproduction of Doctor Whites' paper will be presented in the April issue of Arizona Medicine.

CANCER RESEARCH GRANTS, UNIVERSITY OF ARIZONA

Three U. S. Public Health Service renewal grants totaling \$82,813 have recently been received by The University of Arizona for cancer research projects in the College of Pharmacy and the Department of Chemistry.

A one-year USPHS award of \$46,526 to the antitumor research program conducted over the past five years by Dr. Mary E. Caldwell, University of Arizona Professor of Pharmacology "is more than double last year's grant," said Dr. Willis R. Brewer, Dean of the College of Pharmacy.

Dr. Caldwell's research is seeking the antitumor properties of powdered extracts obtained from certain native plants of the Southwest and Mexico. "The program is producing more than 60 extracts per month for screening tests by the Cancer Chemotherapy National Service Center of Bethesda, Maryland," Brewer said.

University of Arizona
Research Roundup

Lithopedion - Undetected for Fourteen Years

Report of a Case

Joseph B. Buxer, M.D.

Stanley A. Smith, M.D.

Robert C. Evans, M.D.

Case report of lithopedion of fourteen years' duration and successful removal is reported.

THE OCCURRENCE of this entity, although not rare, is uncommon enough to make the reporting of each case worth while. According to Rubin & Novak(1), this article could be titled "Lithokelyphopedion" (since it was complete with a calcified membrane) and confining the terms 'lithopedion' to a "... mummified fetus ... impregnated with calcium salts ..." and 'lithokelyphos' to a case in which only the membranes have become calcified.

These authors(1) also believe that this situation usually develops when a fetus is extruded from a tubal pregnancy and is able to find enough space and nutrition to keep growing until, for some reason, it dies but retains enough blood supply to allow for the deposition of calcium. Our case seems to coincide with this belief.

Many cases of lithopedion have been reported(2-15), including association with ectopic pregnancy(13), normal deliveries following the time of probable formation and before discovery of the calcified fetus(15), dissolution of the fetus with calcified fetal parts passing from various orifices of the body(10), and others too numerous to mention.

Our case went undiagnosed for what we believe to be fourteen years in spite of frequent examinations, hospitalizations, and a known abdominal mass.

CASE REPORT

The patient is a 49-year-old colored female, a mental patient from the Arizona State Hospital, who, on routine physical examination on readmission to that hospital, was found to have a stony hard mass in the lower abdomen. When questioned she stated that the mass had been

there for fourteen years. At that time (during her first marriage) she missed several periods and thought she was pregnant. She remembers feeling movement but it ceased and this she attributes to a kick she received to her abdomen. Shortly thereafter she started having normal menstrual periods which were quite regular. Over the years the mass has become smaller and harder but at no time caused her any difficulty. Six years ago she missed one period and was told that she had miscarried a pregnancy at that time because of fibroids. The following year the same thing happened and she was given the same diagnosis. This most recent history was given by the patient's second husband who is competent and who also verifies the presence of the mass for nine years.

Physical examination disclosed a stony hard tennis ball sized mass above and to the right of the symphysis pubis. It was freely movable and caused no pain. Pelvic examination revealed that the mass was anterior to and seemed separable from a larger posterior mass. A tentative diagnosis of bladder calculus and a fibroid uterus was made and abdominal x-rays were ordered. These made the diagnosis for us. A more intensive pelvic examination showed a normal sized uterus which was retroverted as the mass sat upon it. The pelvis was not tender and both mass and uterus were freely movable. The right adnexa could not be felt and the left was normal. The remainder of the physical examination was within normal limits except for a mild hypertension. A hysterosalpingogram (Fig. 1) now was made to confirm the relationship of the fetus to the uterus.

Laparotomy was performed and the lithopedion removed from the right lower quadrant of the abdomen where it lay head down, face posterior, and free except for a cord like attachment

From the Department of Obstetrics and Gynecology, Good Samaritan Hospital, Phoenix, Arizona.
Resident
Chief Medical & Surgical Service, Arizona State Hospital, Phoenix, Arizona.
Instructor

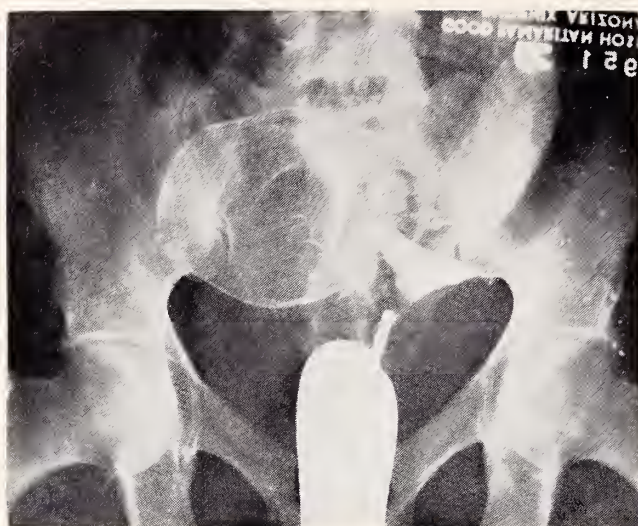


Fig. 1

Hysterosalpingogram showing normal uterine cavity outline displaced posteriorly and to the right by the overlying fetal skeleton. A normal left fallopian tube is also demonstrated (Courtesy of Radiology Dept, Good Samaritan Hospital).

from the head (Fig. 2) to the greater omentum, and right fallopian tube (Fig. 3). No placenta was found. The blood supply appeared to come entirely from the omentum. The omental attachment was ligated and cut and the fetus, right tube, and right ovary were removed. The patient's recovery was swift and uneventful and she has now returned to the state hospital.

Pathological examination of the surgical speci-

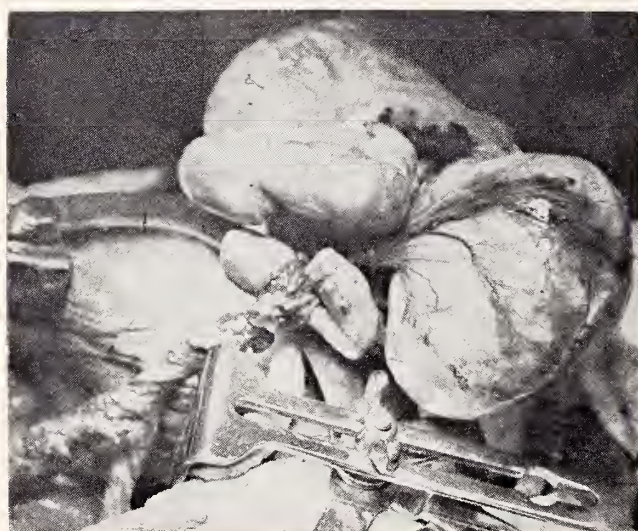


Fig. 2

Lithopedion immediately after removal from anterior abdominal cavity showing cordlike attachment with vessels spreading out distally in the membranes over the head and its bifurcation proximally, one portion coming from the greater omentum and the other from the right tube.

men was reported as follows: "There is a segment of fallopian tube, approximately 1.5 cm in length and 0.6 cm in diameter. The cut surface shows a poorly defined lumen of pinpoint patency and marked thickening of the wall. Another segment of fallopian tube is 7.0 cm in length and 1.5 cm in diameter with ovary and mesentery attached. Within the middle third of the tube there is a large defect and it is at this point that the 13 cm length of mesentery and mesenteric fat are attached. The defect is through the entire thickness of the tube, and on the uterine side of the tube there is a pocket-like space and the tube at this point ends blindly.



Fig. 3

View showing uterus (left foreground), clubbed right fallopian tube and tubal attachment to specimen (going out of picture over retractor in upper right).

"The fetus appears to be partially calcified (Fig. 4). It has a 20 cm CR length, corresponding to a fertilization age of 21 weeks, and weighs 700 grams. There is a thin partially calcified membrane covering the head, which contains small red-brown vascular channels. The hands are beside the head and the knees are flexed and drawn beneath the chin. In addition there is a marked thoracic kyphosis. The vertebrae and all joints are fixed. The fontanelles are depressed and there is a moderate moulding of the skull bones. The scalp is calcified. There are no eyelids, nares or lips and the skin of the face is hard. The skin over the thighs is moderately firm and shows focal areas of calcification. This is a female fetus."

SUMMARY

1. A discussion of the nomenclature and the possible etiology of lithopedions is presented.
2. A brief review of the literature is presented.
3. A report of a case is presented showing an astounding lack of curiosity allowing it to remain undetected for fourteen years.

References

1. Rubin, I. C. and Novak, J. *Integrated Gynecology*. New York: McGraw-Hill, 1956. Vol. II, pp. 420-421.
2. Anderson, J., Counseller, V., and Woolner, L. Lithopedion: Report on an Unusual Case and Notes on Two Other Cases. *Am. J. Obst. & Gynec.* 62:439, 1951.
3. Bland, B., Goldstein, L., and Bolton, W. Compound Intrauterine and Extra-uterine (Lithopedion) Pregnancy. *Surg. Gynec. & Obst.* 56:939, 1933.
4. Brandon, L. True Lithopedion: Incidental Finding at Necropsy and Review of the Literature. *Am. J. Obst. & Gynec.* 54:887, 1957.
5. Clark, J. F. J., and Ellison, H. R. Lithopedion: Case Report. *Obst. & Gynec.* 13:402, 1959.
6. Davis, J. E. Lithopedion. *Am. J. Obst. & Gynec.* 65:673, 1953.
7. Glass, B., and Abramson, P., Volvulus of Cecum Due to Lithopedion. *Am. J. Surg.* 86:348, 1953.
8. Johnson, Kernodle, and Saunders. Term Delivery Associated with an Abdominal Lithopedion. *N. Carolina Med. J.* 19:309, 1958.
9. Kaufman, M. S., and Walters, D. Missed Labor with Autopsy After Eight Years. *Am. J. Obst. & Gynec.* 77:128, 1959.
10. Klipfel, G. Unpublished data.
11. Mason, J., and Simon, H. Extra Uterine Pregnancy: Lithopedion. *Surg. Obst. & Gynec.* 46:501, 1928.
12. Osherooff, S. A. Lithopedion. *Am. J. Obst. & Gynec.* 32:1064, 1936.
13. Temple, H. R., and Hester, L. L. A Lithopedion and a Contralateral Tubal Pregnancy. *Obst. & Gynec.* 14:537, 1959.
14. Voegelin, A. Abdominal Lithopedion with removal after Eighteen Years of a Six Month Lithopedion. *Am. J. Obst. & Gynec.* 30:129, 1935.
15. Woodbury, J. W., and Jarrett, J. C. Abdominal Lithopedion Retained for Thirteen Years. *Am. J. Obst. & Gynec.* 80:590, 1960.



Fig. 4

Lithopedion as surgical specimen.

MEDICAL ABORTION OR MURDER?

The mortality of intentionally induced abortion and when it can be practiced will be discussed for many years. In the meantime, besides being considered immoral, it is in the main illegal in America, and as a result becomes a serious health problem.

A book which analyzes this controversial situation, *The Abortionist*, was published by Doubleday. One of the book's authors is a qualified physician, Doctor X, who performed 25-thousand abortions and who was discovered and sent to prison for four years. He has written personally of the thousands of women he helped, and of the years of torment and illness when he was in prison. He has described the various methods of therapeutic abortion as practiced in some more primitive countries and societies today, and throughout history — in Greece and in the latter stage of the Roman Empire there were no laws against abortion. But Doctor X has written mainly of the social need which he feels exists in this country. He has told of his experiences with no bitterness, but with integrity, not a little impatience, and a plea for more liberal laws.

Arthropod-Borne Viral Encephalitides

V. H. Ueckert, D.V.M., M.P.H.

Stanford F. Farnsworth, M.D., M.P.H.

St. Louis and Western Equine Encephalitis are two important mosquito-borne encephalitides in this area. The authors discuss the epidemiology of these diseases from the standpoint of arthropod vectors and vertebrate hosts. Control measures currently practiced in Maricopa County are briefly discussed.

SOME OF the arthropod-borne viral encephalitides seen around the world include the Eastern Encephalitis, the Venezuelan Encephalitis, the Western Encephalitis, Japanese B Encephalitis, Louping ill, the Russian Spring-Summer (or Far East Encephalitis), St. Louis Encephalitis, and Murray Valley Encephalitis.

Several of these virus diseases which affect the central nervous system are transmitted by mosquitoes. In the United States the most important encephalitides are St. Louis Encephalitis (SLE), Eastern Encephalitis (EE), and Western Encephalitis (WE). These last two occur in mules and horses as well as in man. In addition, the Eastern Encephalitis produces clinical symptoms in birds, causing a serious problem in farm-raised pheasants along the northeast and east coast. The St. Louis type affects man without causing noticeable infections in horses.

In recent years our knowledge of the distribution of these three viruses has been expanded considerably due to advances in virology and epidemiological studies of recent epidemics. Prior to 1940, the geographic distribution of the endemicity of these diseases was based largely upon distribution of cases in horses or man. We know now that although WE occurs primarily west of the Mississippi, it is also present in some of the states along the Atlantic and Gulf Coast. This is evidenced by antibodies in vertebrate hosts and recovery of virus from mosquitoes and wild birds. (1,2,3) SLE occurs in the same geographic area as the WE in the states west of the Mississippi, and also has been recovered in the central states. EE occurs in the Gulf Coast states,

the Atlantic states, as far inland as Wisconsin, north to New Hampshire and south to Texas, and more recently in Hermosillo, Mexico.

Early investigators of the three diseases believed that there was an extension of these viruses from one geographic area to another, but the most recent belief is that these viruses have existed since antiquity. This does not mean that there have not been local extensions into areas where the viruses were previously not present. For example, the Salt River Valley has evidence that irrigation was carried on for many hundreds of years. This is also true for areas in Pinal County. Several thousand acres of arid land in this county and adjacent counties have been brought under irrigation, with resultant increases in mosquito vectors and bird reservoirs, resulting in the extension of encephalitis.

The three types of encephalitis have two basic similarities. The first similarity is that it is generally believed that birds may serve as natural hosts in all three of the encephalitides. Records on bird species involved in WE studies indicate that about 6 species of mammals and about 20 species of birds have been found with SLE antibodies in their blood(4). WE antibodies have been found in more than 75 species of wild birds and at least one-half dozen species of wild animals as well as most of the common domestic birds and mammals(5,6).

It has not been determined which of the species of birds or mammals are primary reservoirs and which of these are of secondary importance. The second similarity is that horses and humans appear to be dead-end hosts or, possibly, secondary hosts for all three of these viruses.

Since both WE and SLE are the two viruses

V. H. Ueckert, D.V.M., is Public Health Veterinarian, Maricopa County Health Department.

S. F. Farnsworth, M.D., is Director, Maricopa County Health Department.

of importance in this area, the other encephalitides will not be discussed. SLE and WE are both seen in areas of high humidity under irrigation thus favoring mosquito propagation. Although in SLE there is no age selection, there have been few reported cases in children under one year of age. Unlike SLE, the WE has a predilection for the very young. Studies of epidemics in California indicated that the incidence was far higher in infants less than one year of age than in any other age group. In the adult age group the incidence is greatest in those over 50 years.

The clinical features of SLE and WE are approximately the same. They include fever, headache, stiff neck, gastrointestinal symptoms, stupor, convulsions, and coma. Paralysis may be present, usually of the upper motor neuron type. Final diagnosis must be made by laboratory tests using acute and convalescent blood specimens.

The mosquito, *Culex tarsalis*, has been incriminated as the primary vector in endemic infections as well as the primary vector in the sylvan infections in the Western United States. In addition to the *Culex tarsalis*, the WE virus has been isolated in nature from numerous other mosquitoes, such as *C. quinquefasciatus*, *C. pipiens*, *C. restuans*, *C. stigmatosoma*, *C. inornata*, *Culiseta melanura*, *Anopheles freeborni*, *A. vexans*, and *A. infirmatus*. In addition, other insects have been incriminated such as bird mites and the assassin bugs, *Triatoma sanguisuga*.⁽⁷⁾ In a recent Maricopa County mosquito survey, ten different mosquitoes were found to inhabit Maricopa County. Two of the above mentioned mosquitoes which have been found in nature to have the encephalitis virus were found in Maricopa County — *C. tarsalis* and *C. quinquefasciatus*.

Beadle discovered that the *C. tarsalis* exhibits a peak of biting activity at dusk, whereas, in the same area, the *Aedes* mosquito reaches biting peaks earlier in the evening⁽⁸⁾. Since some mosquitoes of this area feed earlier in the evening, many people may seek shelter before the *C. tarsalis* begins to feed. With the peak biting period of *C. tarsalis* at dusk, one immediately realizes that hosts, both avian and mammals, available at time of feeding would be the victims. Birds roosting or nesting at this time become the most likely victims; especially inactive, nesting birds

with small amount of vesture, are the choice target.

From past evidence of the feeding habits of *C. tarsalis* one can assume that this mosquito will feed on whatever host is available. For example, Philip, Bell, and Larson⁽⁹⁾, in a study in an arid section of northern Nevada, found that 14 per cent of the black-tailed jack rabbits had WE antibodies.

Important factors in the transmission of encephalitis are the extent of repeated blood feeding and longevity of the mosquito vectors. It has become obvious that the mosquito must feed on an infected victim, then survive through the intrinsic incubation period, then take another blood meal to transfer the virus to another host. Where there are a large number of dead-end hosts — horses, sheep and cattle — *C. tarsalis* may not feed on the infected avian hosts; consequently, less infection would be placed back into the sylvan cycle of encephalitis, (zooprophylaxis). This could be the case in large cattle feeding operations in the West, where the mosquitoes feed on dairy and beef cattle, thus avoiding the sylvan avian cycle.

ENCEPHALITIS CONTROL PROGRAM IN MARICOPA COUNTY

In a recent study conducted in Maricopa and Pinal Counties by the U.S. Public Health Service, Arizona State Health Department, and Maricopa County Health Department, it was found that of the seven chicken flocks tested for the encephalitides viruses, all seven were positive for either WE or SLE, or both. It was impossible to ascertain the season in which the virus was active, but it was either during the Fall of 1959 or Spring of 1960, since the chickens were placed in the laying houses in the Fall of 1959. During the Fall of 1960, one veterinarian in the southwestern section of the Salt River Valley reported five clinical cases of equine encephalomyelitis in a ten day period.

For the past two years the Maricopa County Health Department has had a basic encephalitis control program. The district sanitarians employed by the Health Department have maintained a program aimed at keeping the mosquito population under control. Whenever it is practical, mosquito breeding sites are destroyed. Potential sites that cannot be eliminated are kept under surveillance and routinely sprayed with insecticide. Specimens of larvae and adult mos-

Original Articles

quitoes are collected and identified and records are maintained.

The Maricopa County Public Health Veterinarian investigates all equine cases of encephalitis reported by the practicing veterinarians in the Valley. Acute and convalescent blood specimens are collected from the horses with clinical symptoms of encephalitis. Brains from horses suspected of having died of encephalitis are submitted to State and Federal laboratories for confirmation.

Blood specimens from sentinel chicken flocks at various locations in the County are evaluated for virus activity.

A staff physician maintains a liaison with neurologists and general practitioners in all suspected encephalitis cases in man for confirmation of diagnosis and the collecting of acute and convalescent blood.

With this evidence of the presence of the virus in Maricopa County, a two-pronged program is being initiated. The first is aimed at the vectors. A further study of the mosquitoes and their feeding habits will be conducted. The second phase of the study is somewhat different from previous programs. More attention will be given to the vertebrate hosts than has been given in the past. Previously, most of the attention was directed toward the vectors. Both the vectors and hosts will be investigated to determine which one, or both, serve as overwintering hosts. Some investigation will be made into the actual role, or importance, the dead-end hosts (especially beef and dairy cattle) play in the zoonophylaxis of human hosts.

We know from the previous investigation that the sylvan WE encephalitis might, in particular situations, be perpetuated continuously by an association of redwinged blackbird and *C. tarsalis* without infecting man. Should the English sparrow, a more domestic avian host, become involved, then the possibility of human infections would increase. The County Health Department will explore the role of the more domestic avian hosts and especially the more recent newcomer, the Starling. The Starling, *Sturnus vulgaris*, is no stranger to the Valley vineyard owner, because it has become one of the more recent destructive pests. One may notice this newcomer on the lawns in the Salt River Valley, on the farms, or near the feed lots. The bird appears to be a "short-tailed Blackbird", shaped

somewhat like a Meadowlark. The bill is yellow (no Blackbird has a yellow bill). The summer plumage is glossed with purple and green, while the winter coat is heavily speckled with light dots. With a possible infected avian host like the Starling, one can only surmise as to the impact this would have on the human population.

SUMMARY

With the advances in the virology and epidemiology of the encephalitides the Maricopa County Health Department will attempt to utilize all this new information as it becomes available in order to determine the extent of the St. Louis Encephalitis (SLE), Eastern Encephalitis (EE) and Western Encephalitis (WE) in this county. Since WE and SLE are known to exist in this area, most of the effort will be directed to their study.

The two most frequently incriminated mosquito vectors, *Culex tarsalis* and *C. quinquefasciatus*, of encephalitis in other sections of the United States have been found in this county and adjacent counties. Until the results of the various programs now under way in the State reveal an overall picture of WE and SLE in Arizona, the following recommendations are made:

- a. The physician should report all suspected arthropod-borne encephalitides cases to the local health department immediately. Where no local health department exists, the Arizona State Health Department should be notified. An acute and convalescent blood should be collected in order to have the laboratory confirm the diagnosis.
- b. If the physician, while examining the patient, notices mosquito bites, he should inform the patient to avoid mosquitoes where possible; to spray bedrooms, especially children's rooms, with recommended insecticide prior to retiring at night; screen all windows and doors; have children remain indoors at dusk; eliminate breeding sites such as puddles in irrigated yards and cooler water; remove weeds from irrigation ditches, and report mosquito infestation to the local health department.

The Maricopa County Health Department will continue its present program and will expand it until a complete program will include studies of population densities, nesting, distribution,

resting and roosting habits of avian hosts; and the population densities, winter and summer longevity, host preference and blood feeding habits of the arthropod vectors. In addition, the role of the dead-end hosts, domestic mammals, will be studied. These dead-end hosts may provide a considerable degree of zooprophylaxis for the human population.

It is apparent at this point that many facets of encephalitides have not been explained, especially in the western United States and the irrigated and arid areas of this State. It is also apparent that this public health program deserves more investigative attention in order to prevent or limit future epidemics.

- (1) Holden, P. 1955. Transmission of eastern equine encephalomyelitis in ringnecked pheasants. *Proc. Soc. Exptl. Biol. Med.* 88:607-610.
- (2) Alexander, E. R. & W.A. Murray, Jr. 1957. Surveillance of arthropod-borne encephalitis in the United States—1956. *Mimeogr. Rept., Epidemiol. Branch, CDC, U.S. Public Health Service.*
- (3) Kissling, R. E., R. W. Chamberlain, D. B. Nelson & D. D. Stamm. 1955. Studies on the North American arthropod-borne encephalitides. VIII. Equine encephalitis studies in Louisiana. *Am. J. Hyg.* 62:233-254.
- (4) Harmon, W. McD. & W. C. Reeves. 1945. Recent advances in epidemiology of arthropod-borne virus encephalitides including certain exotic types. *Am. J. Public Health* 35:994-1004.
- (5) Reeves, W. C. 1955. Epidemiological aspects of encephalitis under field conditions. *Proc. Calif. Mosquito Control Assoc.* 23rd Ann. Conf. & 11th Ann. Meeting Am. Mosquito Control Assoc. 48-50.
- (6) Eklund, C. M. 1954. Mosquito-transmitted encephalitis viruses, a review of their insect and vertebrate hosts and the mechanisms for survival and dispersion. *Exptl. Parasitol.* 3:285-305.
- (7) Ferguson, F. F. 1954. Biological factors in the transmission of American arthropod-borne virus encephalitides. *Public Health Monogr.* No. 23.
- (8) Beadle, L. D. 1955. Man-biting habits of *Culex tarsalis* and associated mosquitoes in northern Utah. *Proc. 8th Ann. Meeting Utah Mosquito Abatement Assoc.* :3.
- (9) Philip, C. B., J. E. Bell & C. L. Larson, 1955. Evidence of Infectious Diseases and Parasites in a peak population of black-tailed jack rabbits in Nevada. *J. Wildlife Management.* 19:226-233.

DR. BEATON APPOINTED TO AMA COUNCIL ON MENTAL HEALTH

Dr. Lindsay E. Beaton was appointed to the Council on Mental Health of the American Medical Association by the Board of Trustees during the Clinical Meeting at Denver.

The Council on Mental Health is one of the standing Councils of the Board of Trustees of the AMA. In essence it makes policy in the field of psychiatry and mental diseases for the AMA and implements by action in those areas any decisions made by the Board of Trustees or the House of Delegates. Its major task in the next five years is going to be the carrying out of that one of the ten points of the AMA program having to do with a concerted attack on the problems of mental illness. At the present time this is to be done through a series of conferences in the field for both physicians and allied mental health professionals.

The Council is a rather small and select group. Dr. Beaton is to be congratulated on having been elected to membership in it. This Council has one of the major responsibilities in medicine in the next decade, to bring the physicians of America to a position of leadership in combating mental disease. It is certainly some recognition of Arizona that a non-academic physician should have been included in this undertaking.

Non-Military CBR Defense

John W. Walsh, M.D.

The national program for non-military CBR defense has been moving slowly. However, hope for a brighter future is justified by encouraging research reports, by progress, in the stockpile, protective, and training programs and the continuing enthusiasm of a small cadre of dedicated civil defense workers.

INTRODUCTION

RONNENBERG has very aptly expressed our present day situation in his recent statement to the American Chemical Society: "There are few problems of the nuclear age with which the people of the United States have had greater difficulty in coming to grips than that of civil defense."⁽¹⁾

None of us can cavil with that remark. In an era when Soviet achievements with Sputniks and Luniks have awakened us to the need for increased scientific activity; when diplomatic moves by Khrushchev, Chou en Lai and Castro have found us examining our political conscience; when Soviet, German and Australian athletes beat our men and women in the Olympics, we are continually asking ourselves whither are we going, and what are we doing.

Indecision and apathy have pervaded the civil defense picture, some people say. There is differing opinion about how much money to spend for civil defense, about the role of Federal, state and local agencies, and as a matter of fact, whether there should even be a non-military civil defense program. The civil defense program is not popular, and funds for it are hard to come by.

For those who wish to more fully understand the problems of Congress supporting an adequate civil defense budget, I refer you to the remarks by the Honorable Charles S. Sheldon in the recent American Chemical Society Symposium on CBR warfare.⁽²⁾ I wish there were time to quote him fully, for his paper is a gem. It is "must" reading for civil defense workers.

Presented at the Ninth U. S. Civil Defense Conference, Minneapolis, Minnesota, August 31, 1960.

From the Division of Health Mobilization, U. S. Public Health Service, Department of Health, Education and Welfare and the Office of the Assistant Chief Medical Director for Operations, Veterans Administration, Washington, D.C. Dr. Walsh is Veterans Administration Liaison Representative to the Division of Health Mobilization, U. S. Public Health Service.

RADIOLOGICAL WARFARE

Let us turn first to some reflections on radiological or thermonuclear warfare. One recently published estimate of radiological damage to this country assumed that, if there were 70 target areas in the U. S. bombed without warning, there would be 13 million immediate deaths, 8.2 million more dying within the first 24 hours, and another 5 million injured, exclusive of later casualties from radioactive fallout.⁽³⁾ Estimates of total population losses have often been assumed to go as high as 60 or 80 million.

Figures of this magnitude are too often extracted out of context in newspapers, magazines, or in movies like "On the Beach." Studies of the yearly Operations Alert tell us that we need to examine our results in terms of military or civilian targets, population centers and other factors.

For instance, we have regularly said, as a rough rule of thumb, that the ratio of casualty types following a weapon detonation, is blast 50%, thermal 35%, initial radiation 5%, and radioactive fallout 10%. Vogel published recently a comparative injuries table, which translated weapons yield into radiation, blast, and thermal effects as follows: ⁽⁵⁾

Weapon Yield	Radiation 300 rem	Blast 2.5 psi	Second Degree Burns
1 KT	0.5 mi.	0.6 mi.	0.5 mi.
100 KT	1.1 "	2.8 "	3.5 "
20 MT	2.5 "	16.0 "	32.0 "

Thus, as Vogel says, when we increase the weapon yield from one kiloton to 20 megatons, the circle of serious radiation damage rises only from ½ mile to 2 1/2 miles, or a five-fold factor. The blast overpressure of 2.5 lbs. per square inch (psi) increases from 0.6 to 16.0 miles, or a multiplication factor of 27 with this increased weapon size. Similarly, the radius of second degree burns is multiplied 64 times — from ½ to 32 miles.

Let us translate published figures in still another fashion. We say, for instance, that an LD⁵⁰ is 450 roentgens, perhaps even more. However, a 50-50 chance for life or death is unacceptable. The National Committee on Radiation Protection tells us that an Effective Biological Dose (EBD) is 200r. All these quoted statistics are presented with caution, again because other factors, such as time period of exposure, must be taken into consideration.(4)

Our tolerance for radioactive exposure must

also be considered in light of the job to be done. Radiation doses permitted in a military operation, especially in defense, may be higher than for non-military civil defense operations; the increased risk is justifiable. There may be command operations conducted under certain circumstances, and life saving operations carried at a "calculated risk" level of radiation.

Dr. Van Sandt, Division of Radiological Health, PHS, has translated these ideas into a chart, as follows:(6)

Operations Permitted	Radiation Rate in R/hr. at H+1	Cum. Dose in r 48 hrs.	Cum. Dose in r 7 days	Remarks
Routine or Immediate	10	25	33	50 r in lifetime. No problem
Calculated Risk	20	50	66	No mortality 15% incapacity in 2-7 days
Command Decision	30	75	96	0.5% mortality in 6 weeks 50% morbidity in 1-42 days

Thus, we see that if the radiation at H+1 hours is only 10R, we can expect to accumulate 33R in 7 days, or 50R in a lifetime. There is no risk involved. At a dose of 20R/hr. at H+1, 66R will be accumulated in 1 week, and we can expect 15% incapacity within that period. However, when the radiation is 30R/hr. at H+1, we shall accumulate almost half the effective biological dose within one week, and one out of every 200 people will die. The relationship to "command" decisions is obvious.

There is no clear cut solution to this problem. We should allay public fear so that more emphasis is placed on the blast and thermal effects, and yet we cannot lean too far in that direction. We must continue to encourage shelters with a high protection factor. We must continually emphasize the 100 million or more survivors we expect. Do we not call our programs survival plans? Also, we should have, if possible, a get together by representatives of the National Committee on Radiation Protection, OCDM,, PHS and Defense Department to give these statistics another "hard look."

You may be aware that some research in protecting body cells against radiologic damage is underway. The results are preliminary, we are warned, and studies in smaller animals only have been completed. The protection factor attained

is in the order of two-fold assistance. This might be enough for permitting more command decision military operations.

Military experts point out to us that every new weapon introduced has been later balanced by effective countermeasures. Would that this were true for thermonuclear weapons, right now!

Also, while we are waiting for this effective countermeasure, we are moving in other directions. OCDM, I understand, is working towards some 150,000 radiological monitoring stations, with the purchase of more instruments during this current year. The Army Burn Treatment Center is continually working on methods for handling thermal injuries.

The Division of Health Mobilization, in its assigned research delegation, hopes to give early attention to a study on the vulnerability of water resources and water systems to pollution from Chemical, Biological, and Radiological pollution. Our proposal is to choose one DHEW region, and in a pilot study, develop a method for inventory of both normal and emergency water sources and water systems; measure our capability of detecting and combating CBR pollution of these systems; and then find personnel, equipment and administrative methods to provide potable water when required. Once the baseline study is concluded, expansion of methodology to

Original Articles

other areas of the country is within reach.

With respect to fallout protection for hospitals, the Division of Hospital and Medical Facilities, PHS, has contracted with OCDM to draw up plans for a 150-bed protected hospital, which would be located in a support area and capable of operation during the button-up period of hazardous radiation.⁽⁷⁾ A number of specialized engineering and architectural problems had to be solved — such as filters for BW and CW agents — before the plans could be pronounced as sound, but the hurdles have been overcome, and their model was exhibited at the recent American Hospital Association convention. The Division of Hospital and Medical Facilities has also, as part of its recent work, drawn up plans for hospital administrators who wish to incorporate protective features in their plans for hospital expansion.

The new hospital can be constructed under the Hill-Burton program; sufficient protection to make it fully operative in the “button-up” period adds but a small cost increment, say 3-5%.

Very shortly, the Public Health Service will assume responsibility for the civil defense medical stockpile. Our preparations for this transfer from OCDM have brought us “head on” into the difficulties of procuring and dispersing supplies and equipment, so they will be properly positioned post-attack. Special problems confront us regarding the disaster utilization of narcotics, atropine, and antibiotics.

It has been estimated that one ton of antibiotics can provide austere medical treatment for some 45,000 patients. When we measure casualties in millions, and compare these with our nationwide production of a few hundred tons each year, we have a real problem. This situation being what it is, we feel it is even more urgent for us to reiterate first, that radiation injured patients do not require antibiotics in the early stages, and, second there is genuine need for pre-attack immunization.

The Public Health Service is currently studying stock levels of drugs now available on pharmacy shelves, in wholesale warehouses, and in physicians' bags. The extent to which this will alleviate potential disaster shortages will soon be made known. It represents a resource previously omitted in our inventories.

CHEMICAL WARFARE

What might be considered the modern start-

ing point for CW was the German use of chlorine gas on April 22, 1915, which demoralized the British and French at Ypres. The subsequent addition of mustard, phosgene, the vomiting and “blood” gases to the armamentarium, together with the use by American troops of phosgene and chlorpicrin (February 25, 1918) is assurance to us that CW agents are ever a threat when the military situation so dictates.

More recently, the nerve gases, psychochemical drugs, such as mescaline, LSD-25 and their derivatives, have been introduced, and, no doubt, will be employed if necessary. Our line of reasoning is based on the knowledge that factories manufacturing the nerve gas tabun (GA) have been moved from Germany to Russia, and is supported by Soviet statements such as these by Major General Y. V. Drugor, of the Military Medical Service:

“Many of our scientists . . . regard research on the actions of poisons and on the development of antidotes to be their patriotic duty.”

“Special interest attaches itself to the so-called psychic poisons (mescaline, methedrine, lysergic acid derivatives) which are now used for simulation of mental disease.”

Certainly, the Soviet activity in the CBR defense field is tremendous. Their civil defense organization DOSAAF has set a goal of 20 hours of training per person; 30 million people have already completed their courses. Protective masks are sold in stores throughout the country.⁽⁸⁾

Other speakers have told you about our own mask program. Let us proceed directly, then, to the atropine situation. Our recent survey of the non-military atropine stockpile shows a national total of almost 2000 kilograms. *If* this were undamaged in attack, and *if* it were all immediately available in the required 2 mgm. dosage form, there would be almost 950 million antidotes, or enough for everybody in the U. S. Actually, OCDM has stockpiled 5½ million antidote doses, with more than 1 million in the syrette form, so that although the situation is not ideal, it is encouraging. As General Stubbs has pointed out ⁽⁹⁾, artificial respiration plus atropine can protect a nerve gas casualty against 30 to 50 lethal doses of gas. Yet we have difficulty in protecting the public against a three-fold dose of radiation, or for that matter, against one fatal bullet.

Research on the oximes as antidotes continues, but the only conclusion we can reach so far is that the required therapeutic dose of atropine is less. The oximes counteract some but not all of the nerve gas effects.

For the present, we continue to advise only artificial respiration to be given by the non-medical public. We consider the problems of atropine overdosage so serious that we advise against its wholesale use. (This viewpoint is contrary to the military position as you know.) There are two long range civil defense goals: perfection of a satisfactory mechanical resuscitator which can treat many casualties at one time, and the distribution of a drug whose margin of safety would be such that it could be taken by the patient himself.

BIOLOGICAL WARFARE

Warfare has always been accompanied by bacteriological disasters, whether it be typhus in Russia, or malaria in the Southwest Pacific.

During the World War I period (1918-19), there were some 20 million deaths from influenza, far exceeding the number of battle casualties. Contrast this figure with the results of a nationwide mobilization of personnel and resources in 1957, when we were confronted by Asian flu. As Lueth has pointed out(10), this might very well be considered as a "dry run" exercise against a BW agent, the only difference being that the BW agent — in this case, a virus — was not introduced by an unfriendly country.

In this nationwide exercise, protective vaccination supported by a cooperative effort of practitioners, manufacturers and public health services were important and essential for reducing morbidity and mortality.

Many of the less familiar BW agents can also be counteracted. The Army has prepared a vaccine against anthrax, and protection against the various botulinus toxins which cause such severe food poisoning is possible. Physicians are encouraged by these developments, and yet cautious. Since infections may be developing for some time before frank illness appears, some patients cannot be helped when the diagnosis is evident. Clearly, we need to identify BW agents before they reach their victims.

The list of known BW agents contains very few surprises to physicians, and I dare say, to many civilians. World War II and Korean vet-

erans have been familiar with terms like dengue, malaria and yellow fever. Many rabbit hunters know about tularemia. The diagnostic problem becomes complex when the agent of tularemia is transmitted to humans by aerosol, rather than by a scratch. We have a known disease in an unnatural form.

This concept of unnatural forms of disease is regularly impressed upon physicians through activities of the Disaster Care Committee of the AMA, and the component state and medical societies. Through MEND, the Program of Medical Education for National Defense, the education of physicians in disaster medicine now begins right in medical school.

Other professional groups, such as dentists, veterinarians, nurses, dietitians, and sanitarians (to mention a few) have similar education programs. Health Mobilization personnel regularly meet with these professions to assist them in their pre-attack preparations.

Recent developments in the bacteriological detection field give us cause for hope. As you doubtless know, particle size is important in airborne infections. Only aerosol particles between 1 and 5 micra are carried to the lungs. The Andersen sampler, developed at Dugway Proving Ground, effectively identifies airborne particles by size, and counts them. If to an effective counting system, you add a method for rapid identification of these organisms, you will have the basis for improved BW defense.

A rapid identification method, called immunofluorescence or fluorescent antibody technique, has been developed in recent years, notably at the Communicable Disease Center, PHS, Atlanta.(11) The antibody and agent seek out each other, and unite in the tissue being studied. Under the microscope, one sees the bright fluorescent "tag."

This technique has had notable prominence in identifying streptococci in the throat, and permitting practicing physicians to begin specific medical treatment much earlier. Current plans are for each state health department laboratory to be equipped for this technique, for earlier detection of streptococci.

Fluorescent antibody technique has certain clear-cut advantages: it is successful with but small numbers of organisms, even dead organisms (other bacteriology methods require living

cells); it is rapid, simple, and inexpensive; the antibody solution is stable up to two years after preparation.

If funds are available, we visualize expansion of the fluorescent antibody technique to a nationwide laboratory network. The Communicable Disease Center has developed fluorescent tags for some of the known BW agents and, in time should be able to improve their identification method further. Training of laboratory technicians and purchase of laboratory equipment would soon follow. The costs for these procedures would be reasonable.

The Public Health Service, with its reporting system through regional offices to its National Office of Vital Statistics, already has in being a method for reporting unusual disease outbreaks. Add to the on-going program an effective laboratory network, and you have a working Epidemiology Intelligence Service.

OCDM and PHS will soon prepare appendices to Annexes 18 and 24 of The National Plan

to spell out in more detail their recommendations with respect to Chemical and Biological Warfare Defense and how the public can protect itself.

REFERENCES

1. Ronneberg, C. E. "Introductory Remarks." American Chemical Society Symposium on Non-Military Defense, April 8, 1960. Advances in Chemistry Series No. 26, American Chemical Society.
2. Sheldon, C. S. "The Congressional Point of View." Adv. in Chemistry, No. 26, page 78.
3. Beckford, P. R. "Public Health Aspects of Preventive Medicine and Disaster." Journal of American Medical Association, Vol. 171, No. 2, page 212, 9/12/59.
4. Office of Civil and Defense Mobilization. Information Bulletin No. 167, 2/12/60.
5. Vogel, E. H., Jr. "Management of Burns Resulting from Nuclear Disaster." Journal of American Medical Association, Vol. 171, No. 2, page 205, 9/12/59.
6. Van Sandt, M. M. "Medical Care Plan for 'Emergency in Disaster.'" Management of Mass Casualties Publication No. 588, Walter Reed Army Institute of Research. December 1957.
7. "Prototype Hospital, Fall Out Protected". U. S. Public Health Service Publication No. 791, August 1960.
8. Department of Army Pamphlet No. 3-2, Research in CBR. A Report of Committee on Science and Astronautics, House of Representatives. House Report No. 815, 86th Congress, 1st Session.
9. Stubbs, M. "What You Should Know About Chemical and Biological Warfare". Report to AMA County Medical Societies Civil Defense Conference, November 8, 1959.
10. Lueth, H. C. Advances in Chemistry No. 26, American Chemical Society. "Status of Medical Problems."
11. Cherry, W. B. et al. "Fluorescent Antibody Techniques in the Diagnosis of Communicable Disease." Public Health Service Publication No. 729, Department of Health, Education and Welfare, 1960.

HOW TO JUDGE THE QUALITY OF A DRUG

There is no person alive who can take a bottle of pills, look at them, feel them, smell them and taste them and tell you whether or not they are of high quality. We all know that most people can pretty well determine the quality of textiles, and experts can tell exactly what the quality is by using ordinary senses. This is not so with drugs. I repeat the only way you can reasonably judge the quality of a drug is by relying on the reputation of the name on the label. — Joseph E. Snyder, M.D., Assistant Vice President, New York Presbyterian Hospital, to American Hospital Association.

Erosive ("Peptic") Esophagitis

Theodore O. Alexander, M.D.

A brief review of peptic esophagitis is presented and the findings in six cases reviewed. The use of fluorescein as an adjunct to esophagoscopic diagnosis is stressed, and the author discusses his preferred method for the roentgenologic examination for hiatal hernia and peptic esophagitis.

MUCH WORK has been done on erosive ("peptic") esophagitis, and though described as the most common lesion of the esophagus, its cause, when uncomplicated by other gastro-intestinal pathology still is not clear. It may be found in all age groups but is most often seen in patients within the middle or latter decades of life. There is no basis of generalized systemic disease or of local irritants to the esophagus. In its simple form it may exist in the presence of normal gastric acidity, or even in achlorhydria (2,3).

In most instances, though, erosive esophagitis is probably peptic in origin and associated with a sliding hiatal diaphragmatic hernia(4,5,6,7). Laxness of the esophageal sphincteric mechanism at the cardia, which is normally maintained by gastric, esophageal and diaphragmatic muscles and ligaments leads to a sliding hiatal hernia and a reflux of gastric contents into the esophagus(8). Gastric acid alone has little effect upon the esophageal mucosa, but gastric juice with a high enough acid concentration will activate pepsin and have a destructive effect due to peptic digestion. Aylwin(7) has shown that the degree of acidity of gastric secretions aspirated directly from the lower esophagus is proportional to the incidence and degree of esophagitis found in his patients. It is interesting to note that in para-esophageal hiatal hernias, the sphincteric mechanism is more or less intact and that reflux of gastric contents into the esophagus does not frequently occur.

The pertinent symptoms and findings of six patients with roentgen evidence of erosive ("peptic") esophagitis are presented in table form. In three patients esophagoscopy was performed, and in two of these the gross pathology was corroborated visually (Figs. 5 and 6). In the third patient to have an esophagoscopic examination (Fig. 4), only mucous retention was seen, but at surgery a marked spasm was found of the distal six centimeters of the esophagus.

SYMPTOMS

Patients with erosive esophagitis, whether associated with a sliding hiatal diaphragmatic hernia or not have symptoms in common. A temporary dysphagia, or a sensation of a stopping of the first few mouthfuls of food within the esophagus is probably the most frequent. The sensation may disappear and the patient continue to eat, or the food may be regurgitated. Very close in frequency is the presence of a substernal pain which is deep and can vary in level from the manubrium to the xyphoid. It may radiate to the back. Less constant are hematemesis and melena, or nausea and vomiting. The symptoms may exist for years without lethal complications (Figs. 2, 6a, 6b.).

Dysphagia and substernal pain, although possibly the presenting symptoms usually occur late in the course of the disease. They most frequently indicate spasm although the lesion may have progressed to fibrosis. Early in the course of the disease, the symptoms may be few and consist of little else than pyrosis or night regurgitation



Fig. 1.

Esophagitis of distal 8.0 cm. of organ. Pyrosis and dysphagia. One bout of hematemesis. Age 65 years.



Fig. 2.

73-year-old male with dysphagia for "several years". A sliding hiatal hernia is seen in recumbent position.



Fig. 3a.

Esophagitis with roentgen evidence of small erosions on the left aspect of the distal esophagus. The hernia is difficult to delineate. Age 73 years.



Fig. 3b.

Same patient, six months after medical therapy. The erosions have receded and the hernia now is more evident.

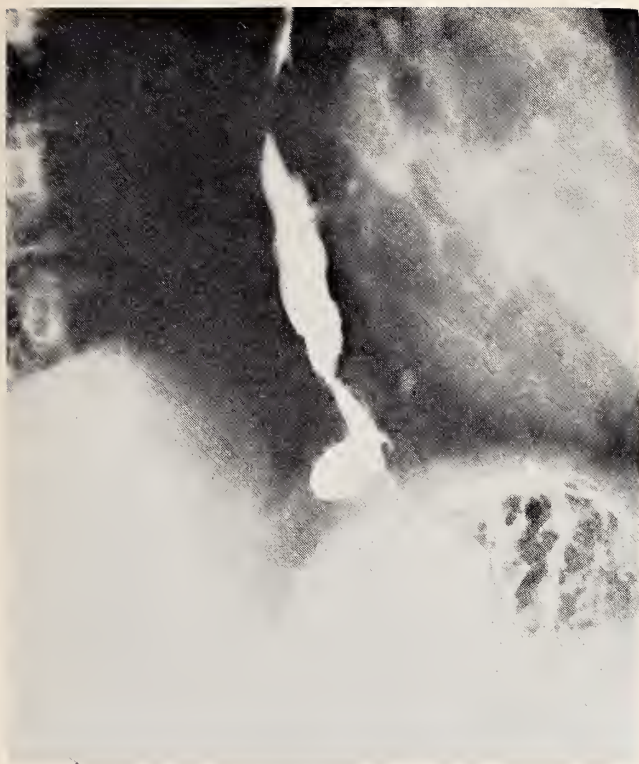


Fig. 4.

Esophagitis in a woman aged 58 years. Pseudodiverticulum. Surgery showed marked spasm of distal 6.0 cm. esophagus.



Fig. 5..

41-year-old male. Esophagoscopy showed inflammatory tissue but no bleeding.



Fig. 6a.

45-year-old woman at onset of dysphagia and substernal pain in 1950. Note conical narrowing of lower esophagus.



Fig. 6b.

Same woman, 1961. A greater part of the esophagus is involved. There had been some lower esophageal surgery in the interim.

TABLE 1

CLINICAL PICTURE OF PATIENTS WITH EROSIVE ("PEPTIC") ESOPHAGITIS					
PATIENT	SEX	AGE	SYMPTOMS-DURATION	ASSOCIATED	ESOPHAGOSCOPY
A.L. Fig. 1	M.	65	Pyrosis. 3 yrs. Dysphagia. 1 yr. Hematemesis. 1x. 1 mo.	No disease	Not Done
W.B. Fig. 2	M.	73	Dysphagia Liquids and Solids. Nineteen yrs.	Sliding Hiatal Hernia	Not Done
C.D. Figs. 3a, 3b.	F.	78	Dysphagia Liquids and Solids. Nausea. 1 yr.	Sliding Hiatal Hernia	Not Done
V.H. Fig. 4	F.	58	Lower substernal pain. Nausea. 1½ yrs.	Pseudo- diverticulum	Mucous retention only. Spasm distal 6 cm. esophagus at surgery.
E.M. Fig. 5	M.	41	Dysphagia. 3 yrs.	No Disease	Inflammatory tissue. No bleeding.
E.M. Figs. 6a, 6b.	F.	45	Substernal pain. Dysphagia. 11 yrs.	No Disease	Inflammation

of gastric secretions. The symptomatology may be further complicated by coexisting peptic ulcerations of the esophagus, the stomach or duodenum(1).

DIAGNOSIS

The diagnosis of the disease can be established early by esophagoscopy with biopsy and later by x-ray studies. Esophagoscopy should be accompanied by the use of fluorescein to detect the early lesions. The distal esophagus is more frequently involved, although the lesions can extend to the level of the aortic arch. The findings are more pronounced proximally, but do extend from the esophago-gastric junction and may be patchy. Where a hiatal hernia exists, there may be a protrusion of gastric mucosa into the esophagus from the herniated portion of the stomach.

Esophagitis usually is called to the radiologist's attention later in the course of the disease when moderate-to-severe spasm exists, or when true fibrosis is present. Fluoroscopy should be performed both in the erect and recumbent positions, using thick-and-thin barium alternately with increased abdominal pressure. In this manner, a sliding hiatal hernia can be detected which will lead to the suspecting of an esophagitis. In relatively early lesions the distal esophagus may have only a conical, smooth narrowing much like that seen in an achalasia of the cardia (Fig. 6a). Sometimes the actual erosions, if large enough can be demonstrated (Fig. 3a). In other instances, there can be a diverticulum-like formation of barium just above the diaphragm which

may represent a distorted herniated portion of the stomach (Fig. 4).

PATHOLOGIC FINDINGS

Early, the esophagoscope shows only redness and edema. This is followed by the presence of minute, round or oval superficial mucosal erosions which may be very difficult to detect without the use of fluorescein(2). Bleeding may be present from very small erosions. Later a thin, translucent film may be seen to overlie the eroded areas. Secretions and food material can make it difficult to detect the membranes. In cases of long duration a true fibrosing stenosis can occur.

Microscopically, the biopsy specimen(3) shows only hyperemia and edema, with few if any inflammatory cells involving the erosions. In later lesions, the inflammatory exudate composed of polymorphonuclear leucocytes, as well as round and plasma cells, extends from the lamina propria of the esophagus to involve the epithelium and to invade the muscularis mucosa. Palmer believes the seat of the lesion to be in the lamina propria, which together with decreased tissue vitality allows peptic digestion of the epithelium and an extension of the cellular infiltrate to this layer.

TREATMENT

Minimal or moderately severe esophagitis may be amenable to conservative treatment alone as is shown in the films of the third patient of this group, where six months of medical therapy caused the gross erosions to regress. Medical

therapy may also be of avail where a chronic esophagitis exists without the presence of a hiatal hernia. Where a sliding hiatal hernia is present, the restoration of the normal physiologic sphincteric mechanism as described by Allison, will serve to alleviate the symptoms of an associated esophagitis. Complications as severe bleeding, perforation, or fibrotic stenosis of the esophagus also call for surgical intervention.

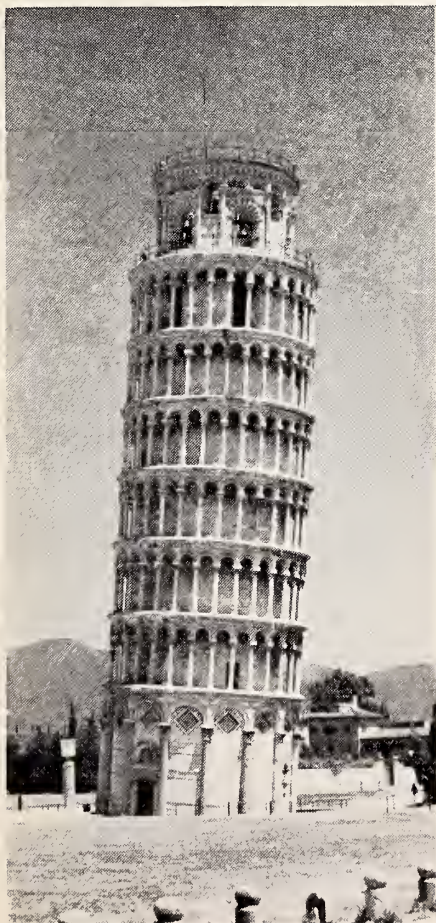
SUMMARY

The subject of erosive ("peptic") esophagitis is reviewed and the radiographic studies of six patients with clinical evidence of the disease are presented. Esophagoscopy was performed on three patients and diagnosis visually confirmed in two patients. The commonest symptoms were dysphagia and substernal pain which were pres-

ent in various patients for periods from one to nineteen years. The pathologic findings are discussed, as is the importance of esophagoscopy using fluorescein and biopsy, especially in the diagnosis of earlier cases where symptoms are few and disease may not yet show by roentgenologic methods.

REFERENCES

1. Allison, P. R., Johnstone, A. S., and Royce, G. B.: Short Esophagus with Simple Peptic Ulceration. *J. Thor. Surg.*, 12: 432, 1943.
2. Palmer, E. D.: Subacute Erosive ("Peptic") Esophagitis. *Arch. Int. Med.*, 94: 364, 1954.
3. Palmer, E. D.: Subacute Erosive ("Peptic") Esophagitis. *Arch. Path.*, 59: 51, 1955.
4. Sealy, W. C., Carver, G.: Sliding Hiatal Hernia-Symptoms, Pathogenesis and Results of Treatment. *J.A.M.A.*, 164: 655, 1957.
5. Cross, F. S., Kay, E. B.: The Etiology and Treatment of Peptic Esophagitis. *Ann. Surg.*, 143: 360, 1956.
6. Ferguson, D. J., Sanchez-Palomera, E., Sako, Y., Clatworthy, N. W. Jr., Toon, R. W., Wangenstein, O. H.: Studies on Experimental Esophagitis. *Surg.*, 28: 1022, 1950.
7. Aylwin, J. A.: The Physiological Basis of Reflux Esophagitis in Sliding Hiatal Diaphragmatic Hernia. *Thorax*, 8: 38, 1953.
8. Allison, P. R.: Reflux Esophagitis, Sliding Hiatal Hernia and the Anatomy of Repair. *S.G.O.*, 92: 419, 1951.
9. Boyd, D. P.: Esophagitis, Hernia, Cardiospasm. *Arch. Int. Med.*, 96: 724, 1955.



When treatment for
IMPOTENCE
is indicated
ANDROID^{T.M.} tablets
ANDROGEN-THYROID-COMBINATION

in two convenient dosage forms

ANDROID

Each yellow tablet contains:

Methyl Testosterone 2.5 mg.
 Thyroid Ext. (1/6 gr.) 10 mg.
 Glutamic Acid 50 mg.
 Thiamine HCl 10 mg.

ANDROID-H.P. (High Potency)

Each orange tablet contains:

Methyl Testosterone 5 mg.
 Thyroid Ext. (1/2 gr.) 30 mg.
 Glutamic Acid 50 mg.
 Thiamine HCl 10 mg.

INDICATIONS: Impotence in male.

AVERAGE DOSE: One tablet three times daily.

AVAILABLE: Bottles of 100 and 500 at your pharmacy.

CAUTION: Not to be used when testosterone is contra-indicated.
 Federal law prohibits dispensing without prescription.

1. Methyl-Testosterone-Thyroid in the Treatment of Impotence, A. S. Titell (Prepub. Report).
2. Thyroid-Androgen Relations, L. Hellman, et al., *The Jrl. of Clin. Endocrinology and Metabolism*, August 1959.

Write for samples and literature...

BROWN THE BROWN PHARMACEUTICAL COMPANY
 2500 West Sixth Street, Los Angeles 57, California



*Hungry
for flavor?
Tareyton's
got it!*

Flavor you never thought you'd get from any filter cigarette!

If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good*! Quality tobaccos at their peak go *into* Tareyton! Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!



Dual Filter makes the difference



Product of *The American Tobacco Company*—

"Tobacco is our middle name" © A. T. Co.

DUAL FILTER *Tareyton*

Textbook after textbook, article after article and experience in practice after practice consistently have demonstrated the capacity of Demerol to produce satisfactory analgesia without weakening the intensity of uterine contractions. In fact, many observers have reported an apparent shortening of labor, particularly in the primipara.

Because it is well tolerated by both the mother and the newborn child, Demerol is generally considered one of the safest analgesics for use in obstetric practice.

In addition to satisfactory analgesia, a moderate sedative effect is obtained with large doses, and sleep is frequently induced between pains.

In 13,000 deliveries reported by 158 physicians, "Demerol was unquestionably the narcotic of choice during labor."

(Questionnaire, The Maternal and Child Welfare Committee, South Dakota State M. A., 1958)¹

"Demerol is our drug of choice for analgesia during labor."

(Posner, Fielding and Posner, Harlem Hospital, New York City)²

Demerol in combination with scopolamine "... offers the best means of securing analgesia and amnesia in labor with the least risk to the mother and child. ... Often one is amazed at the manner in which the cervix melts away under this form of medication."

(Beck and Rosenthal, State University of New York)³



COMFORT—with Safe Control—in Millions of Patients

DEMEROL®
THE ANALGESIC OF CHOICE
IN OBSTETRIC PRACTICE

Winthrop LABORATORIES • New York 18, N. Y.

For a Smooth Delivery...

DEMEROL

BRAND OF MEPERIDINE HYDROCHLORIDE

THE ANALGESIC OF CHOICE IN OBSTETRIC PRACTICE



DEPENDABLE ANALGESIA AND AMNESIA

Demerol with Scopolamine

"When combined with scopolamine, it [Demerol] can produce satisfactory amnesia-analgesia in over 90% of the mothers during labour."

(Hershenson and Reid, Boston Livingston
Heaton and Howard M. Schick)

In one of the most commonly used techniques, an initial dose of 100 mg. of Demerol and 1/150 grain of scopolamine is given intramuscularly when labor is established. Subsequently, 100 mg. of Demerol are given every four hours and 1/200 grain of scopolamine every three hours. "Within 15 or 20 minutes the pain is relieved and neither the frequency nor the intensity of the uterine contractions are diminished."

(Burt and Rosenhal)

Demerol is "...an analgesic drug which relieves pain about as well as does morphine, and it has in addition an antispasmodic action which makes it a good preparation for use during labor. . . . It may be given alone but its effect is enhanced when it is used in combination with scopolamine, and the resultant amnesic effect is excellent."

(Titus, Pittsburgh)

SIDE EFFECTS AND CONTRAINDICATIONS: Demerol hydrochloride is generally well tolerated and nontoxic in therapeutic doses. Side effects occur more frequently in ambulatory patients (who should therefore be specially cautioned) than in those confined to bed. Dizziness is the most common reaction. Nausea or vomiting occurs less frequently than after administration of morphine. Flushing of the face, sweating and dryness of the mouth are sometimes noted. More severe reactions are characterized by great weakness, syncope, profuse perspiration, marked dizziness, and nausea and vomiting. They usually can be prevented if the patient lies down promptly at the onset of side effects. Tolerance to side effects usually develops quickly if medication is continued in small doses (25 mg.). In contrast to morphine, respiratory depression occurs infrequently.

However, in patients with lesions that cause increased intracranial pressure, respiratory depression has been noted; therefore, the drug is considered to be contraindicated in such persons.

When Demerol with Scopolamine is used, idiosyncrasy to scopolamine may be encountered occasionally, producing the paradoxical effect of excitement, restlessness, hallucinations and delirium instead of sedation and amnesia. In addition, edema of the uvula, glottis and lips may be encountered occasionally in extremely hypersensitive patients.

Nalorphine (Nalline®) or levallorphan (Lorfan®) are considered to be specific antidotes against respiratory depression which may result from overdosage or unusual sensitivity to narcotics including Demerol.

1. Ranney, Brooks. *South Dakota J. Med. & Pharm.* 11:479, Dec., 1958.
2. Posner, L. B., Fielding, W. L., and Posner, A. C. *Obst. & Gynec.* 2:81, July, 1953.
3. Beck, A. C., and Rosenthal, A. H. *Obstetrical Practice*, ed. 7, Baltimore, The Williams & Wilkins Company, 1958, pp. 1029, 1030.
4. Hershenson, B. B., and Reid, D. E. *Bull. Narcotics* 8:36, July-Sept., 1956.
5. Titus, Paul. *The Management of Obstetric Difficulties*, ed. 5, St. Louis, C. V. Mosby Co., 1955, p. 617.

PRINTED IN U. S. A. REVISED, DECEMBER 1961 (10314)

DEMEROL Hydrochloride Solutions / for Parenteral Use:

50 mg. per ml.: Ampuls of 0.5, 1, 1.5 and 2 ml. (25 to 100 mg.); vials of 10 and 30 ml.; disposable syringes of 1 ml.

75 mg. per ml.: Disposable syringes of 1 ml.

100 mg. per ml.: Ampuls of 1 ml.; vials of 20 ml.; disposable syringes of 1 ml.

pH of Demerol 5% and 10% solutions in ampuls and vials is adjusted between 4.5 and 6.0 with sodium hydroxide or hydrochloric acid. Multiple dose vials of Demerol solution also contain metacresol 0.1 per cent as preservative.

Demerol with Scopolamine (50 mg. of Demerol HCl and 1/300 grain of scopolamine HBr per ml.): Ampuls of 2 ml.; vials of 30 ml. pH is adjusted between 4 and 5 with sodium hydroxide or hydrochloric acid.

DEMEROL Hydrochloride / for Oral Use:

Demerol hydrochloride tablets 50 mg.

Demerol hydrochloride tablets 100 mg.

Demerol hydrochloride elixir (50 mg. per 5 ml. teaspoon)—Pleasant banana flavor, nonalcoholic, Especially useful for children.

A.P.C. with Demerol tablets—For potentiated action each tablet contains: 200 mg. (3 grains) of aspirin, 150 mg. (2½ grains) of phenacetin, 30 mg. (½ grain) of caffeine, and 30 mg. (½ grain) of Demerol hydrochloride.

Subject to regulations of the Federal Bureau of Narcotics.

THE STANDARD **DEMEROL®**
for Controlled, Safe Analgesia in Obstetrics

YOUR IMMEDIATE DUTY

(This is vitally important)

Leslie B. Smith, M.D.



We are face to face with those who proposed to establish a new order in our socio-economic life by its regulation through Federal-Government dictums. The King-Anderson Bill (HR 422) is a prime example because through legislation it would grant unlimited regulatory powers to the Department of Health-Education & Welfare and its Secretary.

It was recently called to our attention that HR 4222 (Health care of aged, through Social Security) as well as other major legislative proposals now being emphasized, are not laws but are congressional permits for the Administration, through the various departmental Secretaries, to formulate the "law" by the specified regulatory authority.

The proponents of HR 4222 have been vociferous in their quotations from the "Finding and Declaration of Purposes" Sec. 2 (b) wherein it states — "and do these things in a manner consistent with the dignity and self respect of each individual, without interfering in any way with the free choice of physicians or other health personnel or facilities by the individual, without the exercise of any Federal supervision or control over the practice of medicine by any doctor or over the manner in which medical services are provided by any hospital." The duplicity of such otherwise unqualified statements is proved by the first provision of the "Law" Sec. 1601 — which again proposes "PROHIBITION AGAINST INTERFERENCE" because here the statement denying control is interrupted by a semicolon which is followed by ";—or, except as otherwise specifically provided, to exercise any supervision of control over the administration or operation of any such hospital facility, or

agency." Anyone who even casually studies this bill will be impressed with the frequent disclamation of the text by inserts such as; "... except as otherwise specifically provided . . . with which an agreement is in effect under this title . . . — customarily furnished . . . — under a teaching program approved by a recognized body approved for the purpose by the Secretary . . . — only such drugs and biologicals . . . — maintains adequate medical records (as defined by regulation) . . . — meets such other conditions if participation under the section as the Secretary may find necessary . . . — . . . has a hospital utilization committee (only one M.D. required) . . . — . . . an agreement may be terminated by the Secretary . . . — . . . There is hereby created a Health Insurance Benefits Advisory Council . . . appointed by the Secretary . . . — . . . the term 'regulations' means unless the context otherwise requires, regulations prescribed by the Secretary." This is the pattern of that which might be foisted upon the American people.

THE ISSUE

The issue is not primarily who needs medical care and who should provide it. The issue is — shall we remain free by denying an ideology which proposes Governmental rule by decree. Dr. F. J. L. Blasingame has asked — should our government be centralized? — he has also stated that — we have a moral responsibility beyond medicine to learn the facts and mobilize the moral and spiritual forces to accomplish our purposes (The advancement of the science and the art of medicine and the distribution of the highest quality by a mechanism which will assure the best medical care with due consideration of all the people).

"The Administration's program (King-Anderson Bill) is not a medical care bill — but is supported by millions who think it is." (Sen. Robert S. Kerr). Sen. Kerr has also stated — "The Kennedy program would not take care of the needs if it were in effect 100 years — Neither

The President's Page

you or the citizens can remain free by a program administered in Washington — you cannot regulate Utopia into existence — if you (doctors) do not present our cause, then be prepared to suffer the consequence — you are now in conflict with government proposals — your cause is right, but many a righteous cause has been lost because the righteous were asleep — IF YOU WIN THIS FIGHT (against HR 4222), AND WIN IT YOU MUST — IT WILL EQUAL YOUR SCIENTIFIC ACHIEVEMENTS — BECAUSE ALL THE PEOPLE OF THE WORLD NEED YOU TO MAKE THIS FIGHT — MAYBE YOU AND I CAN TELL OUR CHILDREN AND OUR CHILDREN'S CHILDREN THAT WE WAGED A BATTLE WHICH PRESERVED A FREEDOM THAT PROVED TO BE THE FINEST OF ALL."

Hon. Bruce Alger has stated — "If we are only concerned about medicine, we are lost, we are battling to preserve a free people — Freedom means the acceptance of responsibility — the present proposals (HR 4222) would not supplement the best medical care, but would replace it."

The lines are drawn and unless we fulfill our just obligations to carry the truth to all, the mistakes of history, as they relate to good medical care for all, will be proved, due to our omission of duty.

The Arizona Medical Association's Board of Directors has concurred in the actions of the American Medical Association — that the best interests of our country and its citizens will be best served by directing our all out effort to carry the facts to the people so that they may know the TRUTH which is essential in order that their acts be based on intelligent conclusions rather than the emotional-vote-appeal-illusion mouthed by some.

We have many dedicated allies in this cause but as Dr. Larson has pointed out — "they rightfully expect that we be the shock troops."

PROGRAM

The Board of Directors have endorsed a program which will effectively carry the message to many people if we all do our part. To initiate this they authorized the formation of a broad committee to be composed of representation from our Legislative Committee, Public Relations

Committee, Elected Officers, and the Womans' Auxiliary. This group was granted authority to employ a part-time Public Relations expert, if necessary, along with a Secretary who would help coordinate the activities. The objective will be fulfilled by publicity through the mediums of the Press, Radio, TV, personal contacts through the Speakers Bureau and furnishing educational material to our doctors and their patients. It is anticipated that this educational program will be effective by resolutions and adopted by groups, and letters from individuals which express their views and desires to their respective legislators. This technique has been proved effective even when the conclusions forwarded have been based on false indoctrination. It is true that we cannot match the dollar performance of some of our adversaries such as those who propose to represent Labor — but as long as we continue to present the truth, we can nevertheless, be successful. Be this as it may, it is necessary that we have "postage-money." The Board members are convinced that the preservation of our system is of paramount significance and have assessed themselves \$10.00 to initiate our effort and authorized the subscription from each of our members of a like amount.

A team of experts from the AMA office were in Phoenix March 2 where they met with representatives of ARMA and the Woman's Auxiliary to initiate the WHAM (Women Help American Medicine) program to secure resolutions for presentation to Congress and the Administration. On March 3, another group from the AMA office met with us to conduct a work shop on our Speakers Bureau. These meetings were of high calibre and most helpful.

To fulfill your duty you should:

1. Learn the facts
2. Enlighten your patients and friends
3. Accept any responsibilities which are assigned by your conscience or by your associates
4. Express your views to your associates, groups and congressmen.
5. Send \$10.00 or more to your State Medical Association, P. O. Box 128, Scottsdale, Arizona
6. Remember that "the cause is right."

When minor aches and pains
disturb your patients' sleep...



BAYER® ASPIRIN
DOESN'T MAKE THEM SLEEP,
IT LETS THEM SLEEP,
NATURALLY!



AND WITH BAYER ASPIRIN,
THERE'S NO
"SEDATIVE HANGOVER."

There are, of course, a great many instances of sleeplessness in which the patient should be directed to take a sedative to induce sleep.

But there are also many instances in which sleeplessness is caused by nothing more serious than minor aches and pains which can easily be relieved by one or two tablets of Bayer Aspirin. With physical discomforts gone, sleep comes naturally.

And when Bayer Aspirin is used as a sleeping aid, patients never suffer the "sedative hangover" which so often follows an induced sleep.

So remember, when minor aches and pains disturb your patients' sleep, Bayer Aspirin doesn't make them sleep; it lets them sleep, naturally, with no "sedative hangover."



"All the world's a stage..
And one man in his time
 plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7



through all seven ages of man

VISTARIL®

effective anxiety control
with a wide margin of safety

in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King¹ found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,² who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION

HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION

HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being®



PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

New York 17, New York



IN BRIEF

VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL Parenteral Solution (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL Capsules (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL Oral Suspension (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®



PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

New York 17, New York

"Dear Doctor

In your busy night-and-day preoccupation with other people's lives, it is very difficult for you to find time to think about your own future.

Yet face it you must for the sake of your family.

We urge you to join with our many other friends and customers of the medical profession, and arrange for a visit—with your lawyer—to our Trust Department.

Discuss your estate plans in detail. Let an experienced Trust Officer show you how the group-judgment of specialists in the Trust field will insure your estate being handled soundly, economically—and to the letter of your Will.



TRUST DEPARTMENT

Security Building, Phoenix

Resources \$750 Million



Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



NaClex[®] benzthiazide[®]

in edema
and hypertension
achieves 82% of
its diuretic effect
in six hours¹

NaClex works fast. Does its work quickly, thoroughly, safely—then lets your patient rest. Completes 82% of its excess fluid loss within 6 hours, over 96% within 12 hours¹ . . . an unsurpassed potency. Useful also in long or short-term treatment of congestive heart failure, obesity, pre-menstrual tension; 50 mg. tablets.

1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.

For more information, ask your Robins representative or write:

A. H. Robins Company, Inc.
Richmond 20, Virginia



Available in Canada under the
trade name E-Na

PRESIDENTIAL ADDRESS

Juan E. Fonseca, M.D.

Members of the organizing committee in Hermosillo, colleagues, ladies and gentlemen: On this solemn occasion the Medical Society of the United States and Mexico round up the scientific and social labors of the Sixth Annual Convention. It behooves me to express the thoughts and sentiments of our American members who have just spent three memorable days among their Mexican conferrers.

First of all, I wish to record our heartfelt gratitude to our Hermosillo hosts for the warm and sincere reception they have given us, from the acting governor of the state down to the humblest electrician. In a special way our thanks must be given to our friend, the President of the Medical Society of the State of Sonora, Dr. Carlos Tapia and his collaborators, who have made the success of this meeting possible, crystallizing what has turned out to be the most brilliant scientific exercise in the history of our Society. The efforts of the Mexican wives who acted as hostesses and entertained our own ladies, will be long remembered. To them all we say is, MANY THANKS!

As it grows in stature and maturity, the Medical Society of the United States and Mexico widens its horizons and becomes increasingly aware of its mission in this intensely internationalistic world.

It is not enough that we talk of science and try to become better friends. We are reaching levels in world history which transcend those amenities. Humanity as a whole is threatened with destruction by a common enemy, the unleashed atom, which does not discriminate because of nationality, race, creed or age, and which, one would think, would throw mankind into a common bond of brotherhood and tolerance.

Let this association of ours, therefore, become an exemplary nucleus of inter-american intellectuals, which should raise the noble standards of Pan-Americanism closer to a working

and practical level. Let it be a potent solvent of ancient prejudices, and may it succeed in influencing the science and governments of our respective countries into all the routes that lead to the ideals of the productive and truly beneficial interamerican principles dreamed by all.

Those of us north of the border fervently hope to have the opportunity to reciprocate your gracious hospitality in Tucson next year. Many Thanks.

DISCURSO PRESIDENCIAL

Miembros del Comité Organizador de Hermosillo, compañeros, damas y caballeros: En esta ocasión solemne con que finaliza su faena científica, y fraternizadora la Sociedad Médica de Estados Unidos y México en este emporio sonorensé, recae sobre mi el innmerecido honor de dirigirme a ustedes para expresar, en los tonos más expresivos y sinceros que yacen al alcance de mi inepta lengua, los sentimientos que encaban en estos momentos en las mentes y corazones de todos los miembros de esta Sociedad y sobre todo los de aquellos que en estos tres días inolvidables han participado en nuestras funciones.

Me place, en primer lugar, hacer patente a nombre de nuestros socios norteamericanos aquí presentes en la más sentida expresión de gratitud hacia nuestros anfitriones hermosillenses en esta jornada por la cálida, sincera y entusiasta acogida que desde el excelentísimo señor Gobernador hasta el más humilde electricista nos han dispensado en esta visita que hemos tenido el honor de hacerles.

De modo muy especial deseamos hacer constar este agradecimiento a nuestro distinguido y leal miembro, el doctor Carlos Tapia Téllez, Presidente de la Federación Médica de Sonora y sus colaboradores en la preparación de esta reunión anual de nuestra sociedad, por sus incansables, generosos y fructíferos esfuerzos

Inaugural address by Dr. Juan E. Fonseca of Tucson, Arizona, upon becoming president of the Medical Society of the United States and Mexico:

Discurso pronunciado por el Dr. Juan E. Fonseca de Tucson, Arizona, al tomar posesión como Presidente de la Sociedad Médica de Estados Unidos de Norteamérica y México:



Dr. Juan E. Fonseca delivers his Inaugural Address on becoming President of the Medical Society of the United States and Mexico. On the right is Mrs. Fonseca and on his left is Sonora Congressman Ramon A. Amante.

que con tanto éxito han hecho culminar en esta sesión, en la más productiva y brillante de todas las convenciones que la historia de nuestra organización recuerda.

No puedo dejar de mencionar la labor de las señoras esposas de nuestros colegas de Hermosillo por su fecunda labor de hospitalidad y entretenimiento con que han agasajado a nuestras propias compañeras, con derroche de afecto, generosidad e imaginación. A ellas, en nombre de las nuestras y en el mío propio mil gracias!

La Sociedad Médica de Estados Unidos y México a medida que cobra estatura y adquiere madurez, ensancha casi insensiblemente sus horizontes y se hace consciente, a pasos agigantados, de la misión que la propia idiosincrasia de sus elementos componentes y el desarrollo vertiginoso del internacionalismo del hombre moderno le imponen.

No basta ya que comparemos notas y cambiemos comentarios sobre tal enfermedad o mas cual operación. No es suficiente yue nos esforcemos por conocernos mejor en la social, ni que luchemos por entendernos mejor.

En la Filología y la Lingüística, estamos acercándonos a confines, en el campo de las rela-

ciones humanas, que trascienden esosloables esfuerzos. Estamos en realidad al alcance de un enemigo común de la raza humana. El átomo desencadenado yue en virtud de que no respeta raza ni nacionalidad, ni edad, ni religión, debía ante su imponente y aterradora amenaza servir a la humanidad en hermandad fraternal, generosa, compresiva y tolerante.

Que sea pues esta organización un nucleo ejemplar de intelectuales de este continente que nos diera Colón y en que nos dejara convivir el indigena americano; que eleve y haga funcionar de manera ejemplar y fructífera los principios más nobles del interamericanismo.

Que sea nuestra Asociación, poderoso disolvente de los prejuicios de antaño y que logre influenciar a la ciencia y a los gobernantes de ambos países hacia derroteros y nos conduzca a todos los Campos Eliseos de la Hermandad y cooperación panamericana soñada por todos.

No podemos menos que hacer votos, nosotros los de allende la frontera, porque se apresure la oportunidad de hacerles a ustedes nuestros compañeros mexicanos, objeto de nuestra propia hospitalidad y afecto el año entrante en Tucson en nuestra próxima reunión. Muchas gracias.



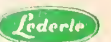
"Notice any change, Mrs. T.?" *"Well, Doctor... When I realized that I looked forward to teaching... really enjoyed being with the children again... I knew things were better..."* "Ever feel light-headed?" *"No... not at all. I feel perfectly normal now..."*

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TREPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

this could be your "anxiety patient" on

TREPIDONE
MEPHENOXALONE LEDERLE

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department, LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



Theragran[®]

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesses who need therapeutic vitamin support. Each Theragran supplies the essential vitamins in truly therapeutic amounts:

Vitamin A	25,000 U.S.P. Units
Vitamin D	1,000 U.S.P. Units
Thiamine Mononitrate	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Vitamin C	200 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B ₁₂	5 mcg.

SQUIBB



Squibb Quality—the Priceless Ingredient

'Theragran'® is a Squibb trademark

“nutrition...present as a modifying or complicating factor in nearly every illness or disease state”¹

1. Yourmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases “Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease.”²

2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis “It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . .”³

3. Fernandez-Herlihy, L.: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.⁴ Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.⁵

4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases “Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult.”⁶

6. Overholser, W., and Fong, T.C.C. In Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.⁷

7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.⁸ “Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes.”⁹

8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'[®]

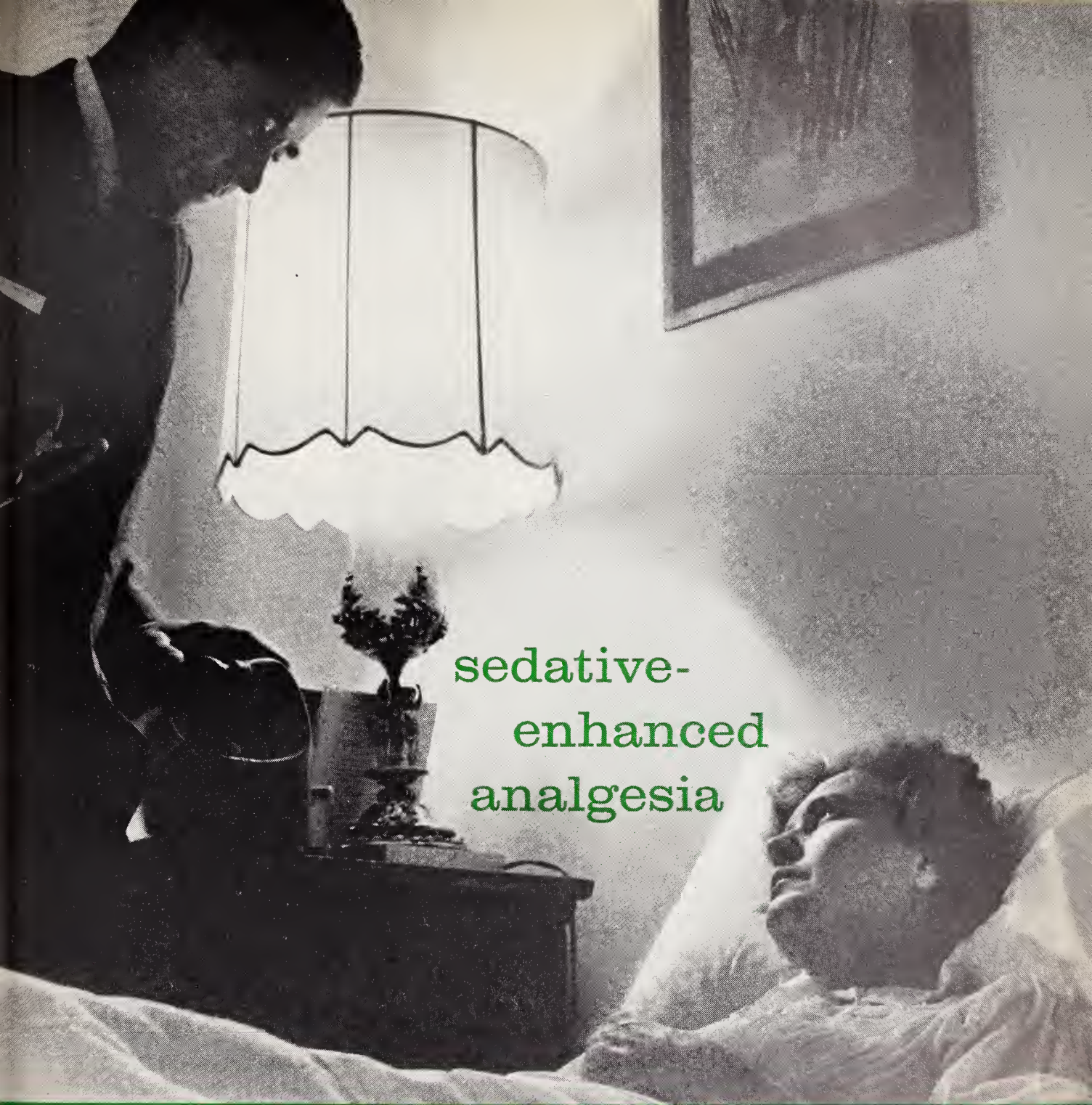
brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.



Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



sedative-
enhanced
analgesia

for more satisfactory relief of anxiety-aggravated pain

PHENAPHEN[®]

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.¹
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.²

Each PHENAPHEN capsule contains:

Acetylsalicylic acid (2½ gr.) 162 mg.
Phenacetin (3 gr.) 194 mg.
Phenobarbital (¼ gr.) 16.2 mg.
Hyoscyamine sulfate 0.031 mg.

Also available:

PHENAPHEN with CODEINE PHOSPHATE
¼ GR. (16.2 mg.) Phenaphen No. 2
PHENAPHEN with CODEINE PHOSPHATE
½ GR. (32.4 mg.) Phenaphen No. 3
PHENAPHEN with CODEINE PHOSPHATE
1 GR. (64.8 mg.) Phenaphen No. 4

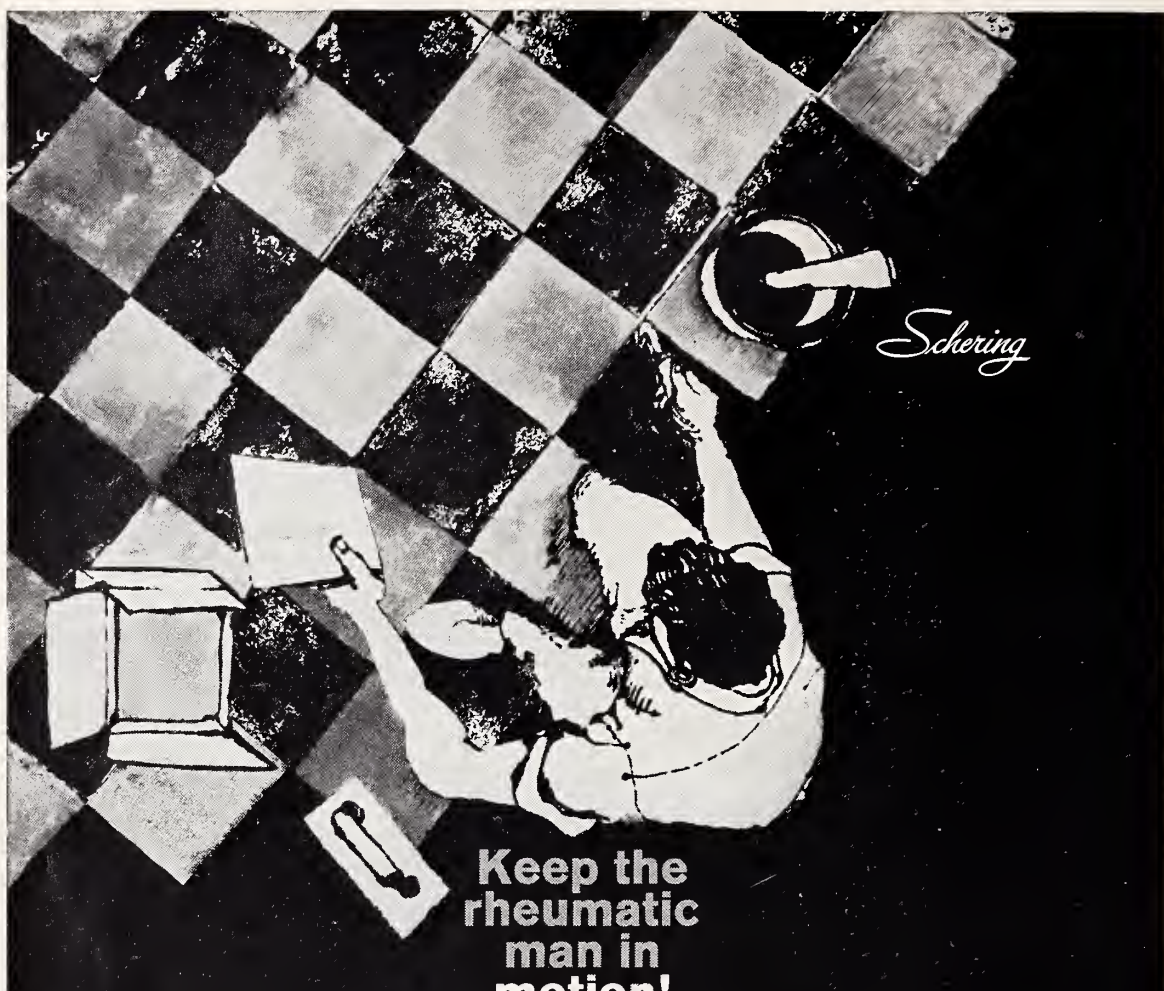
Bottles of 100 and 500 capsules.

¹ Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. ² Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity...seeking tomorrow's with persistence.

Robins



**Keep the
rheumatic
man in
motion!**

DELENAR loosens the rheumatic grip on muscles and joints, starts them functioning again — first by a direct relaxant action on skeletal muscle, again by its specific analgesic effects. And, while immediate symptomatic relief restores motion, underlying inflammation is reduced with the low-dosage corticosteroid.

Now you can restore comfortable motion safely, surely with DELENAR in rheumatoid arthritis/traumatic arthritis/early osteoarthritis/spondylitis/fibrositis/myositis/bursitis/tenosynovitis.

Formula:

Orphenadrine HCl	15 mg.Proved muscle relaxant to relax spasm
Aluminum Aspirin	375 mg.Fast analgesic relief of motion-stopping pain
Dexamethasone*	0.15 mg.Low-dosage anti-inflammatory steroid

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J. **Bibliography:** 1. Ernst, E. M.: Pennsylvania M.J. 63:708 (May) 1960. 2. Settel, E.: Clin. Med. 7:1835 (Sept.) 1960.

*DERONIL® brand of dexamethasone

loosens the rheumatic grip on muscles and joints


Delenar®
brand of antirheumatic preparation

a
major achievement
in the convenience
of intramuscular
antibiotic therapy

Terramycin[®] *Isoject[™]*

oxytetracycline for intramuscular injection, ready
to use in sterile syringe with sharp, sterile needle
— all in one integrated, entirely disposable unit

completely
sealed to prevent syringe-
transmitted hepatitis/
ready-to-use/tamper-proof/
disposable...and
surprisingly economical

 *Science for the world's well-being[®]*





a
major achievement
in the convenience
of intramuscular
antibiotic therapy

Terramycin[®] *Isoject[™]*

provides the benefits of Terramycin Intramuscular Solution: rapid effectiveness against a broad range of pathogens; rapid, wide distribution in body tissues and fluids; excellent toleration

IN BRIEF

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. As with all I.M. preparations, injection should be made within the body of a relatively large muscle. Care should always be taken to avoid injection into a major nerve or its surrounding sheath. For complete dosage, administration, and precaution information, read package insert before using. Terramycin Intramuscular Solution contains 2% (W/V) Xylocaine.*

More detailed professional information available on request.

*Xylocaine[®] is the registered trademark of Astra Pharmaceutical Products, Inc., for its brand of lidocaine.

plus ... all the advantages of the ISOJECT unit:

convenient completely self-contained/no intricate assembly/no chance of lost parts

sterile and completely disposable
prevents syringe-transmitted hepatitis

economical compares very favorably in cost with less convenient and practical forms — and reduces likelihood of breakage and waste

tamper-proof unit is safely sealed

presently available ISOJECT forms:

Terramycin[®] Intramuscular Solution — 100 and 250 mg.
Vistaril[®] Parenteral Solution — 25 and 50 mg.
Streptomycin Sulfate Solution — 1 Gm.

*The cigarette
that made the filter famous!*



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

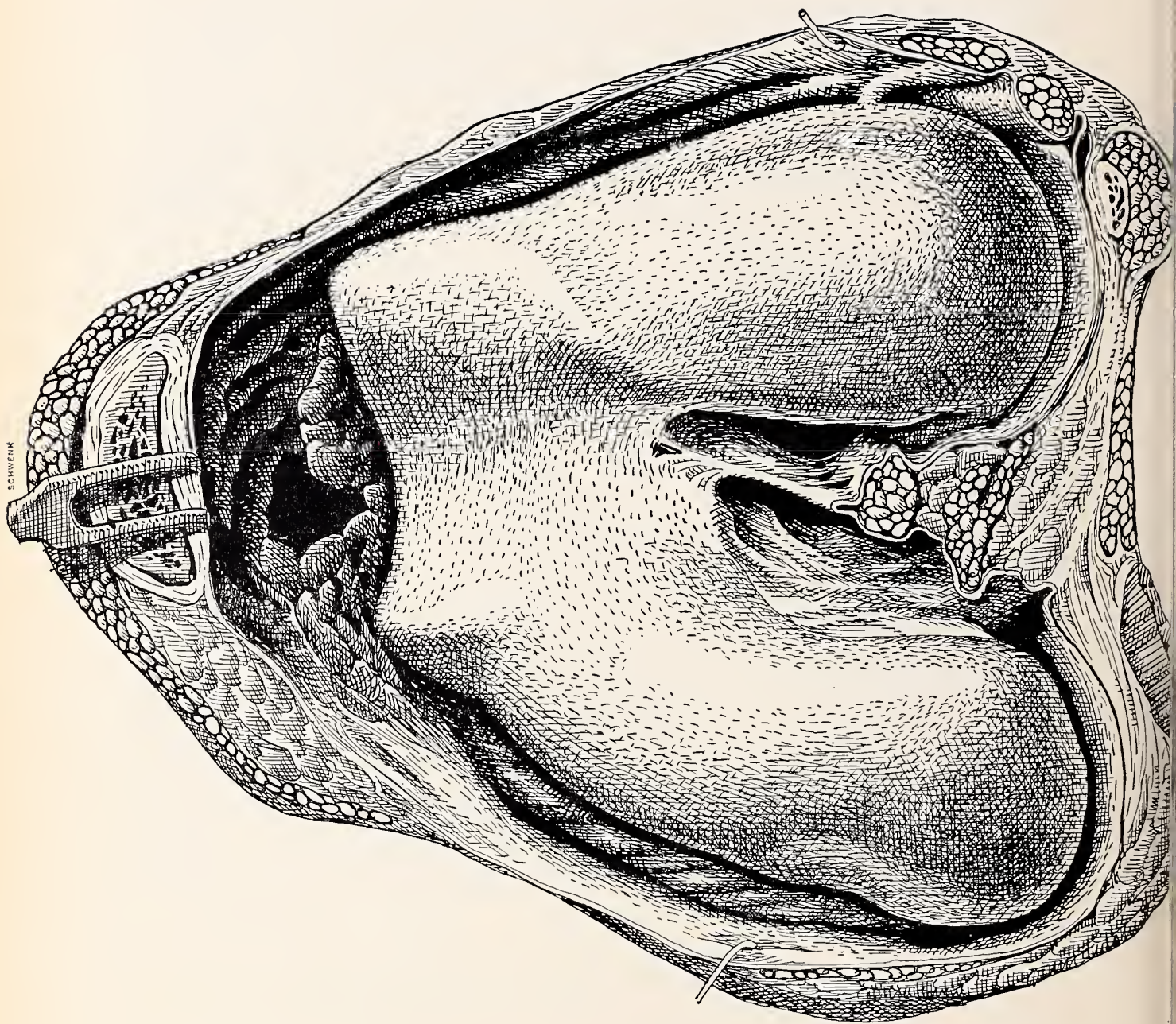
Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

**Your taste buds will tell you why
you'll feel better about smoking
with the taste of Kent.**

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.



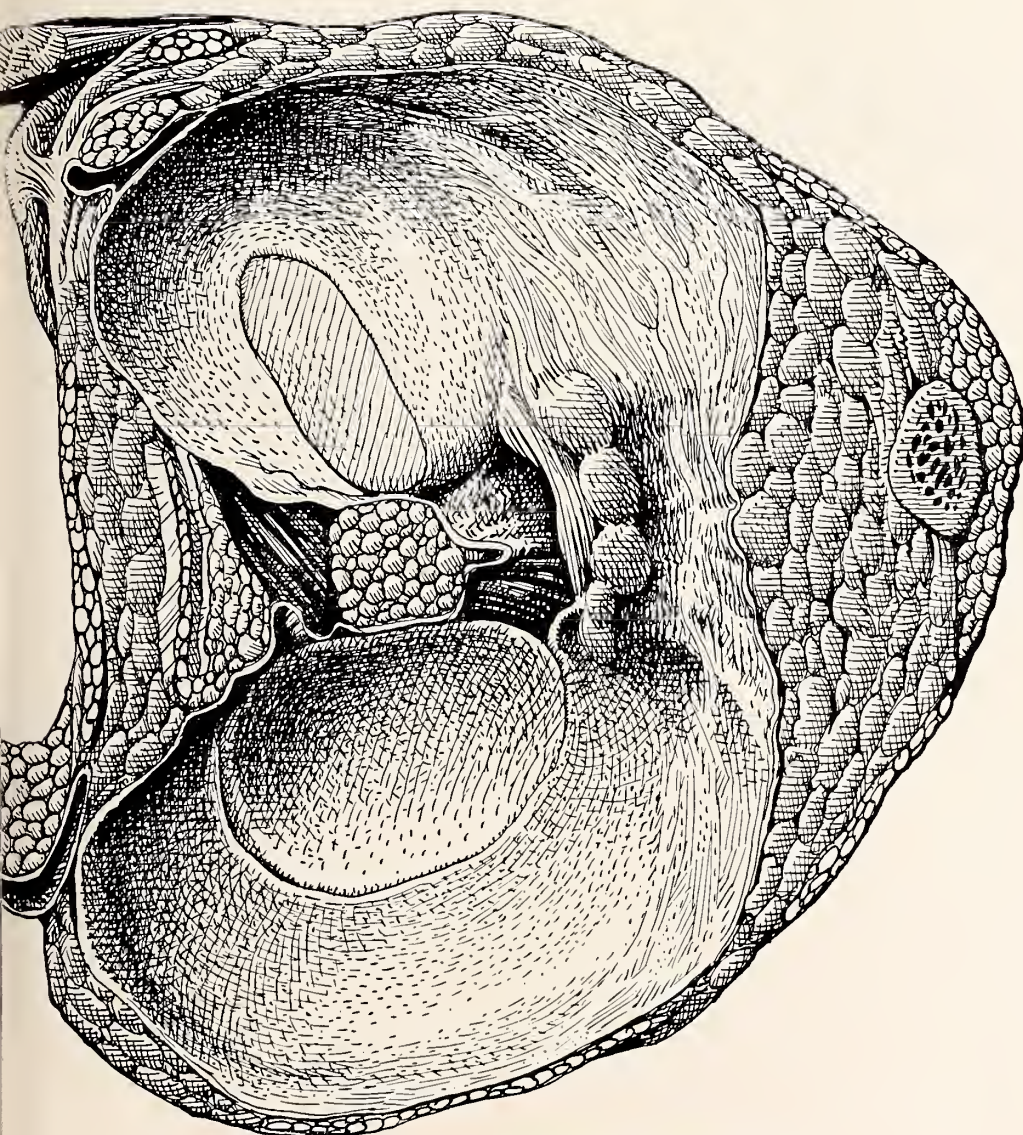
because patients are more than arthritic joints...
controlling inflammatory symptoms is frequently not enough

Even cortisone, with its severe hormonal reactions, can effectively control inflammatory and rheumatoid symptoms. But a patient is more than the sum of his parts — and the joint is only part of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

*Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy*

Aristocort[®]

Triamcinolone Lederle



(Knee Joint, Left: distal end of femur; Right: proximal end of tibia)

ARISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased appetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional disturbance and insomnia.

ARISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — without the undesirable psychic stimulation and voracious appetite.

Applied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY • Pearl River, New York

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!

Cotazym-B supplies

12  **TIMES GREATER FAT-SPLITTING LIPASE (STEAP SIN) ACTIVITY THAN PANCREATIN N.F.¹**

7  **TIMES GREATER STARCH-DIGESTANT AMYLASE (AMYLOPSIN) ACTIVITY²**

5  **TIMES GREATER PROTEIN-DIGESTANT PROTEINASE (TRYPSIN) ACTIVITY²**

- PLUS BILE SALTS TO AID IN DIGESTION OF FAT, AND CELLULASE TO AID IN DIGESTION OF FIBROUS VEGETABLES



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"³—is a concentrated pancreatic enzyme preparation developed by Organon.⁴ It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.^{1,4,5,6,7,8} COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.



REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: *South. M.J.* 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., *Am. J. Gastro.* 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: *Chicago Medicine*, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: *N. Y. St. J. Med.* 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym-B[®]

Lipancreatin Bile Salts Cellulase

QUESTIONING THE PSYCHIATRIST
ABOUT INSANITY

Every test of criminal responsibility, whatever its wording, asks a double or loaded question: Did the defendant have a mental disorder? If so, was the disorder such as to render the defendant irresponsible for the alleged violation?

The first question is medical and can be answered by the psychiatrist. The second question is legal and must be answered by the court and jury.

The psychiatrist can determine the presence or absence of a mental disorder. He is qualified. He will have had the opportunity to examine the defendant — in private, as in any medical examination. He can have taken into consideration the hereditary and environmental factors and his longitudinal view of the individual's whole biography. Still much of the material on which he bases his diagnosis would probably be inadmissible as "evidence" in the trial.

To the second or legal half of the test of responsibility — whether the particular violation

was a product of the mental disorder or whether the defendant in a special set of circumstances was able to distinguish right from wrong — the psychiatrist can make only a guarded and theoretical contribution. For he will have been absent or excluded during most of the trial. He can know more about the defendant in general but less than the court or jury about the detailed conditions and events of the violation itself.

The second (legal) question is obviously groundless if a mental disease or defect has not already been described. Yet the psychiatrist is sometimes appalled at being immediately asked: "Doctor, as a result of your examination, do you have an opinion whether the defendant was able to know the difference between right and wrong, etc?" Or, even worse, "Did the defendant know the difference, etc.?"

Even Judge Biggs in a recent discussion refers only to the dependent half of the McNaghton rules.* He states that it is absurd to limit a

ARIZONA MEDICINE

ARIZONA MEDICINE

Darwin W. Neubauer, M.D.Editor
Margaret McMahonSecretary to the Editor
720 N. Country Club Rd., Tucson, Arizona

ASSISTANT EDITORS

Robert CarpenterArizona Medical Association Reports
Richard L. Dexter, M.D.
Joe E. Ehrlich, M.D.
Mayer Hyman, M.D.
Clarence L. Robbins, M.D.
Preston J. Taylor, M.D.Original Articles
Juan E. Fonseca, M.D.
Augusto Ortiz, M.D.Medical Society of the
Byron BrowderUnited States and Mexico
Lindsay E. Beaton, M.D.
R. Lee Foster, M.D.
William B. McGrath, M.D.
Leslie B. Smith, M.D.Editorial Section
Howell S. Randolph, M.D.In Memoriam
Andre J. Bruwer, M.D.Reprints
John W. Kennedy, M.D.
Paul J. Matte, Jr., M.D.Historical Section

ASSOCIATE EDITORS

Charles W. Elkins, M.D.Neurosurgery
A. K. Hansen, M.D.Ophthalmology
Louis G. Jekel, M.D.Dermatology
Robert Lacock, M.D.Ob-Gyn.
C. Thomas Read, M.D.Chest Surgery
Wallace A. Reed, M.D.Medical Economics
Gerd Schloss, M.D.Pathology
Paul L. Singer, M.D.Genito-Urinary
Hugh H. Smith, M.D.Public Health
Alvin L. Swenson, M.D.Orthopedics
William G. Ure, M.D.Tuberculosis
Roger F. White, M.D.Pediatrics

Editorials of Arizona Medicine are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

ADVERTISING AND SUBSCRIPTION OFFICES

Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

"The material in this journal is not copyrighted. We would like to ask that anyone using material from it note the previous publication in ARIZONA MEDICINE."

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accept for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

Editorials

skilled psychiatrist to answering one question — Did the defendant know the difference between right and wrong? That is *not* the question! The question to the psychiatrist is whether the defendant had or has a mental disease or defect. This he can answer. Then, with the help of the psychiatrist, it is up to the court or the jury to decide whether that mental disease or defect resulted in “the lack of substantial capacity to conform his conduct to the requirements of the law which he is alleged to have violated.”

Omission or neglect of the basic (medical questions) — the presence or absence of mental disorder — is especially misleading in defense based on irresistible impulse. Premature and pointless arguments are heard: whether a normal individual was overwhelmed by an irresistible impulse; or whether a normal impulse overtook an unresisting individual. The former is self-contradictory, of course. Normal people are presumed not to have irresistible impulses. The latter is meaningless unless it can have been shown that inability to resist the impulse was a symptom or product of demonstrable mental disease or defect.

Our scientific knowledge is rendered useless and futile by such incompatible questions as, “Can a normal person be temporarily insane?” If an issue of temporary insanity is raised, we have to be asked: “Of what specific mental disease or defect was temporary insanity a symptom?” In medical-legal situations *all insanity is temporary* — insofar as the term “insanity” refers to absence of criminal responsibility with regard to a particular act.

Four terms, which are not synonymous, are often used interchangeably in the questioning of the psychiatrist: psychosis, mental disease or defect, insanity, absence of criminal responsibility. Psychotic and mental diseases should refer to and describe the individual. Lacking criminal responsibility applies to the individual only with regard to the act in question. A legal test of criminal irresponsibility is *not* equivalent to a medical definition of mental disease or defect. Failure to separate these elements has led to much of the dissatisfaction with available formulae.

The term “mental disease or defect” is too general to be very helpful in expert testimony. Of the mental diseases, it is almost always and only the class of the *psychoses* which may imply

or entail the absence of criminal responsibility. The Diagnostic and Statistical Manual of the American Psychiatric Association* defines a psychosis or psychotic reaction as “one in which the personality, in its struggle for adjustment to internal and external stresses, utilizes severe affective disturbance, profound autism (absorption in phantasy) and withdrawal from reality, and/or formation of delusions or hallucinations.”

Suppose the psychiatrist (in replying to the basic question) has testified that the defendant is or was mentally ill and psychotic. And the psychiatrist has defined and explained the term, psychotic, — in general and with particular reference to the act of violation in question. This is *not* a diagnosis! And it is hardly expert testimony. To say, in medicine, that an individual is ill is to say practically nothing.

It is even more ridiculous to ask *how* ill until you have asked *which* illness.

Let us permit psychiatry to become more scientific than semantic. It is not a semantic error to insist that a patient either does or does not have a specific disease — especially before asking whether his behavior is due to this or that or any disease. It is surely not too much to require of an expert in psychiatry to state the specific diagnosis. A mental disorder, sufficiently severe to account for antisocial behavior, is almost always positively demonstrable. It puts no further burden on the psychiatrist to itemize and illustrate in a given case the cardinal symptoms of the disease which he has diagnosed.

Our Diagnostic and Statistical Manual has a chapter on the definition of terms (pages 12 to 43, op. cit.). It provides an excellent reference for attorneys because almost all psychiatrists can agree to the definitions. It is difficult to imagine an aberrant individual — or the aberrant behavior of an individual — which would bring him into the toils of the law and which would not fit somehow in our classification.

As mentioned earlier, the *psychotic disorders* are most likely to impair or destroy capacity for criminal responsibility. The psychoses include the involutional and manic-depressive reactions, the different types of schizophrenia, and the paranoid states. Then there are a number of nervous and mental diseases of which psychosis may or may not be a complication.

There are the *acute and chronic brain disor-*

*American Bar Association Journal, June, 1961, Volume 47, Number 6, Pages 621-622.

*American Psychiatric Association, 1785 Massachusetts Ave., N. W., Washington, 6, D. C.

ders; that is, conditions of impaired brain tissue function in known organic diseases and intoxications. Probability of criminal irresponsibility may be presumed only when the qualifying phrase, "with psychotic reaction," is explicitly included in the diagnosis.

The non-psychotic illnesses include the *psychophysiologic* (psychosomatic) and *psycho-neurotic disorders*. These do not result in gross falsification or distortion of reality by hallucinations, illusions or delusions. And they are characterized rather by anxiety than by the deeply morbid and prolonged mood disturbances of the involutional and manic-depressive psychoses. Neither does the personality of the psychoneurotic undergo marked disorganization or deterioration. The neurotic recognizes and struggles against his disturbance.

Personality disorders, especially the sociopathic or psychopathic personalities, are sometimes accompanied by very bizarre and dangerous disturbances of behavior. But again, the probability of irresponsibility should be considered only in the exceptional case of personality disorder in which psychotic reaction is a complication and so recorded.

The distinction between a psychosis and a personality disorder is not quantitative, is not a matter or measure of severity. The psychotic adopts as reality his distorted view of himself and his environment. The personality disorder retains the capacity to view the environment realistically. He can adapt his behavior (policeman at elbow) to the demands of reality, though he may be willing to adapt himself according to the rules of society. The class of personality disorders is so important in medical-legal work that our Diagnostic and Statistical Manual (definition of terms) should be studied in detail.

In severe *mental deficiency* the capacity for responsibility may never have been attained. This is unequivocally true of individuals with an intelligence quotient of fifty or less (mental age of eight). In the moderate and mild mental deficiencies other tests may have to be employed (projective, performance, social maturity ratings). And the psychiatrist's opinion will take into additional consideration the physical and emotional and occupational development of the individual, his personality traits and general behavior. Mental defects acquired after adolescence are classified under the causative ner-

vous or mental disease. Again, the qualifying phrase, "with psychotic reaction," may or may not be added.

Definitions and diagnoses in psychiatry are still largely descriptive and not yet etiological; they do not purport to explain causes. But real effort has been given to the classification and understanding of the manifold types of personalities and the various mental disorders which alter the ability of the individual to live harmoniously with himself and in society.

The psychiatrist can begin to testify informatively (1) when he is asked the medical part of the double question in every test of criminal responsibility; (2) when he has been given the opportunity to offer and explain his specific diagnosis; and (3) when his terms are defined and distinguished from the legal terms. The court and jury must then determine the applicability of the psychiatric findings to the legal issues of the particular charge.

William B. McGrath, M.D.

CORPORATE PRACTICE OF MEDICINE

My enthusiasm for enabling legislation by the State Legislature permitting professional men to incorporate and thus become eligible for tax benefits as corporations, has been somewhat dampened by doubts as to whether *one* practitioner could declare himself a corporation. Also by the considered opinion that the Internal Revenue Service will make a series of test cases in every collection district. Questions have likewise been raised about the "corporate practice of medicine" and what effect such legislation would have on the establishment of "Permanente type" facilities in this state. Last but not least is the outside chance that the Keogh Bill might become law, and if so, only those who do not have existing coverage under a prior retirement program may set aside the \$2,500.00 per annum tax-free.

One argument against the incorporation of doctors is that it would leave us talking out of both sides of our mouth in regard to social security coverage. We have announced that this is a fraud and a delusion; that it is actually unsound (which it is) and that we want no part

Editorials

of saddling our children and children's children with a debt for payments which pay back more than is received. Under a corporate setup, salaries must be real and social security must be paid. (We could of course refuse the benefits.)

On the attractive side of the ledger is the ability to provide deductible group life and health insurance; sick benefits up to \$100.00 a week tax-free; death benefits up to \$5,000.00 to the widow (tax deductible). The doctor would pay taxes only on his share of the benefits when he gets the actual cash — generally following his retirement. If he takes the cash in a lump sum, he pays only 25 per cent maximum as a capital gain.

Perhaps we should make haste slowly and let the 13 states who now have such laws slug it out with the Internal Revenue Department. In any case, if we push for legislation, let's invite the lawyers, the dentists, and the accountants to share the expense with us.

See the January 5th issue of *Medical World News* entitled, "M.D. Tax Break Due in More States."

Paul B. Jarrett, M.D.

EDITOR'S NOTES

MAIL ORDER PRESCRIPTIONS — Mail order prescriptions are an increasing problem. They present a number of inherent dangers, difficulty in checking prescription files, delay in obtaining medication for the patient, a loss of the physician-pharmacist-patient relationship, and if properly checked an increasing cost in determining if the mail prescription was written by a qualified physician.

* * *

LOW UROKINASE EXCRETION IN CANCER, *Cancer* 14:889, 1961 — "Excretion of urokinase, an activator of plasminogen, is significantly lower among patients with cancer than in normal individuals. Results of 224 determinations of urokinase, carried out quantitatively on 25 patients in various stages of malignant disease, revealed that values were lower in patients who died within the 26-day period of the study than in survivors. Urokinase values were close to normal, if not higher, among patients with cancer who had undergone successful surgery. Uro-

kinase is produced by all body tissues, with the possible exception of the liver. However, the exact function of this activator has not yet been established. One attempt at explaining the low excretion rate of urokinase in advanced carcinoma is that the activator is produced in normal amounts but is used up in lysing fibrin deposits, which are possibly required for the invasion of malignant cells."

N. Riggensbach & K. N. von Kaulla,
University of Colorado Medical Center
Denver, Colorado

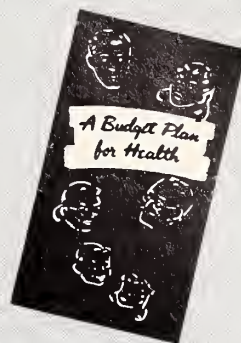
* * *

SEX CHROMATIN IN BUCCAL SMEARS, *Obstetrics and Gynecology*, 18:64, 1961—"Determination of chromosomal sex by examination for chromatin bodies in the nucleus offers a clue to many genital abnormalities, endocrine disorders, and fertility problems. The small basophilic chromatin body is located next to the inner surface of the nuclear membrane in normal female cells possessing two X chromosomes (XX), and is also present in abnormal chromosomal states represented by XXY and XXXY chromosomal configurations. Exfoliated squamous epithelial cells from the buccal mucosa are a good source for the cytologic smear. The patient is advised to gargle with a saline solution, after which the inner surface of the cheek is scraped. The contents are spread on a clean glass slide and immediately fixed in a mixture consisting of 3 parts 95 per cent ethanol and one part glacial acetic acid. Slides are left in the fixative for 2 hours and subsequently stained with orcein solution, freshly prepared by adding 100 mg. of orcein to 10 ml. of a warm 50 per cent solution of glacial acetic acid.

Only the chromatin component of the nucleus will take this stain. Smears are compared with a smear from a normal female. If the same per cent of chromatin-positive cells are found, the smears are considered female in type. In a male-type smear no true sex chromatin masses are seen. The true sex of individuals can be determined with this technique."

Z. M. Naib, University of Maryland
School of Medicine
Baltimore, Maryland

*An Ethical Professional
Service for Your Patients
Founded 1936*



**Now Is The Time For All Good Doctors
To Come To The Aid Of Their Patients**

Anytime is the right time to suggest the Budget Plan for Health to your patients. They'll certainly appreciate it.

The Budget Plan for Health is the professional and ethical way for you to get your money fast and it's the modern way for the patient to meet his financial obligation to you.

The patient likes paying bills on easy monthly payments — that's the way he buys his home, his car, a boat, clothing, and many other important items. It lets him have what he wants today and to enjoy it while he's paying for it. Likewise, with you he won't have to put off the services he needs from you because he doesn't have the cash. Through the Budget Plan for Health he can avail himself of your services and meet his financial obligation to you on easy monthly payments at bank rate of interest.

So, to get your money fast and help your patient enjoy your services on easy monthly payments suggest the Budget Plan for Health. Remember, Doctor, a paid patient is a satisfied patient and your best practice builder.

Medical & Dental Finance Bureau

First Street at Willetta	•	Phoenix	•	258-7755
31 North Tucson Boulevard	•	Tucson	•	MA 3-9421
456 North Country Club Drive	•	Mesa	•	WO 4-5668

Future Medical Meetings and Postgraduate Education

THE ARIZONA MEDICAL ASSOCIATION, INC. 71ST ANNUAL MEETING

April 25, 26, 27, 28, 1962

SAFARI HOTEL

SCOTTSDALE, ARIZONA

PROGRAM

WEDNESDAY, April 25, 1961

7:30 A.M.	Breakfast	Convention Center
7:30 A.M.	Board of Directors Meeting	Convention Center
12:00 Noon	Luncheon — Board of Directors	French Quarter
1:00 P.M.	House of Delegates — First Regular Session	Convention Center
3:00 P.M.	Blue Shield Annual Corporation Meeting	Convention Center
7:00 P.M.	Reception	New Pool Patio
8:00 P.M.	Chuck Wagon Dinner	New Pool Patio

THURSDAY, April 26, 1962

John R. Schwartzmann, M.D., General Chairman

SCIENTIFIC SESSION

8:00 A.M. to 9:30 A.M.	Breakfast: Panel Discussion “Public Health Problems in Arizona” Hugh H. Smith, M.D., Moderator Lloyd M. Farner, M.D., Discussant Stanford F. Farnsworth, M.D., Discussant Frederick J. Brady, M.D., Discussant William Soberanes, M.D., Discussant	Main Dining Room
9:30 A.M.	Intermission	
9:45 A.M.	Scientific Session “Diagnosis and Treatment of Placenta Praevia” John L. Parks, M.D., Washington, D.C. Richard B. Johns, M.D., Moderator Hermann S. Rhu, M.D., Discussant	Convention Center

GENERAL SESSION

10:30 A.M.	Opening Exercises Call to Order Leslie B. Smith, M.D., President Invocation The Reverend John Atwood Scottsdale Methodist Church Memorial Service The Reverend John Atwood Scottsdale Methodist Church Welcome Yavapai County Medical Society Albert O. Daniels, M.D. Response The Arizona Medical Association, Inc. Roland F. Schoen, M.D. Introduction of the Incoming President Leslie B. Smith, M.D. Presidential Address Clarence E. Yount, Jr., M.D.	Convention Center
11:45 A.M.	Intermission	

Future Medical Meetings and Postgraduate Education

SCIENTIFIC SESSION

THE PUBLIC IS INVITED

12:00 Noon	Scientific Session “Pediatric Aspects of Mental Retardation” Richard Koch, M.D., Los Angeles, California Richard B. Johns, M.D., Moderator Herman W. Lipow, M.D., Discussant	Convention Center
1:00 P.M.	Specialty Society Luncheons	
	Arizona Chapter — American College of Surgeons	French Quarter
	“Diagnosis and Treatment of Intestinal Obstruction” J. Howard Payne, M.D., Los Angeles, California	
	Arizona Section — American College of Obstetrics & Gynecology — Phoenix and Tucson Ob-Gyn Societies	Convention Center
	“Genetics and Gynecologic Practice” John L. Parks, M.D., Washington, D.C.	
	Arizona Society of Allergists	French Quarter
	“The Immediate Type of Allergic Reaction” William B. Sherman, M.D., New York, New York	
	Arizona Society of Pathologists	Kudu Room
	“Sarcomas of the Brain” James W. Kernohan, M.D., Phoenix, Arizona	
	Arizona Chapter — United States Section — International College of Surgeons	Lanai Room

REFERENCE COMMITTEES

2:30 P.M.	Reference Committees	Conference Room
3:15 P.M.	AMERICAN MEDICAL WOMEN'S ASSOCIATION Coffee Hour	French Quarter

ENTERTAINMENT

1:00 P.M.	Annual Handicap Golf Tournament	Location to be announced
3:00 P.M.	Annual Bowling Tournament	Papago Lanes, Scottsdale

SPECIALTY SOCIETY BANQUETS

5:00 P.M.	Western Reserve Alumni Association Cocktail Hour . . . Business Meeting	Pool Patio
6:30 P.M.	George Washington University Alumni Association 6:30 P.M. Cocktails 7:45 P.M. Dinner	Cloud Club, Phoenix
7:00 P.M.	Arizona Chapter — Western Orthopedic Association Arizona Radiological Society	Location to be announced Kudu Room

Future Medical Meetings and Postgraduate Education

Arizona Society of Anesthesiologists
6:00 P.M. Business Session
7:00 P.M. Cocktails 8:00 P.M. Dinner
“The Anesthesiologist As A Physician”
Peere C. Lund, M.D., Johnstown,
Pennsylvania

Convention Center

FRIDAY, April 27, 1962

John R. Schwartzman, M.D., General Chairman

SCIENTIFIC SESSION

7:30 A.M.	Breakfast	Main Dining Room
8:00 A.M.	Breakfast: Panel Discussion – “Fetal and Infant Salvage” Edward Sattenspiel, M.D., Moderator Richard Koch, M.D., Discussant Peere C. Lund, M.D., Discussant John L. Parks, M.D., Discussant Stephen O. Schwartz, M.D., Discussant	Main Dining Room
9:15 A.M.	Intermission	
9:30 A.M.	Scientific Session “Congenital Orthopedic Defects” Warren A. Colton, Jr., M.D., Phoenix, Arizona James E. Brady, Jr., M.D., Moderator Paul H. DeVries, M.D., Discussant	Convention Center
10:00 A.M.	Scientific Session “Allergic Reactions to Drugs” William B. Sherman, M.D., New York, New York James E. Brady, Jr., M.D., Moderator Daniel H. Goodman, M.D., Discussant	Convention Center
10:30 A.M.	Scientific Session “Anemia” Stephen O. Schwartz, M.D., Chicago, Illinois James E. Brady, Jr., M.D., Moderator Ralph A. Jackson, M.D., Discussant	Convention Center
11:00 A.M.	Intermission	
11:15 A.M.	Scientific Session Presentation – Annual Award Paper Paper to be read by Author Arthur R. Nelson, M.D., Moderator	Convention Center
11:45 A.M.	Scientific Session Arthur R. Nelson, M.D., Moderator “Treatment of Acquired Heart Disease” Henry T. Bahnson, M.D., Baltimore, Maryland Arthur R. Nelson, M.D., Moderator James E. O’Hare, M.D., Discussant	Convention Center

Future Medical Meetings and Postgraduate Education

12:15 P.M.	Scientific Session "Obstetrical Anesthesia" Peere C. Lund, M.D., Johnstown, Pennsylvania Arthur R. Nelson, M.D., Moderator Fred H. Landeen, M.D., Discussant	Convention Center
1:00 P.M.	Specialty Society Luncheons Arizona Chapter — American Academy of General Practice Arizona Chapter — American College of Chest Physicians "Treatment of Tetralogy of Fallot" Henry T. Bahnson, M.D., Baltimore, Maryland "Other Aspects of Asthma" William B. Sherman, M.D., New York, New York Arizona Society of Pediatrics "Infectious Diseases" Richard Koch, M.D., Los Angeles, California Arizona Psychiatric Society	French Quarter Convention Center Kudu Room Lanai Room

HOUSE OF DELEGATES

3:00 P.M.	Second Regular Session	Convention Center
-----------	------------------------	-------------------

ENTERTAINMENT

7:30-8:30 P.M.	Presidential Reception	New Pool Patio
8:30 P.M.	President's Dinner Dance	Convention Center

SATURDAY, April 28, 1962

John R. Schwartzmann, M.D., General Chairman

SCIENTIFIC SESSION

9:00 A.M.	Scientific Session "Asthma" William B. Sherman, M.D., New York, New York Richard E. H. Duisberg, M.D., Moderator Robert H. Stevens, M.D., Discussant	Convention Center
9:30 A.M.	Scientific Session "Etiology of Leukemia" Stephen O. Schwartz, M.D., Chicago, Illinois Richard E. H. Duisberg, M.D., Moderator John F. Christianson, M.D., Discussant	Convention Center
10:00 A.M.	Scientific Session "Ulcerative Colitis in Children" Richard Koch, M.D., Los Angeles, California Richard E. H. Duisberg, M.D., Moderator Hugh C. Thompson, M.D., Discussant	Convention Center

Future Medical Meetings and Postgraduate Education

10:30 A.M.	Scientific Session "Reflections Upon Anesthesia for Minor Surgery in the Office or Out-Patient Department" Peere C. Lund, M.D., Johnstown, Pennsylvania Richard E. H. Duisberg, M.D., Moderator Reginald J. M. Zeluff, M.D., Discussant	Convention Center
11:00 A.M.	Intermission	
11:15 A.M.	Scientific Session "Late Results in Treatment of Aortic Aneurysms and Aorto-Iliac Occlusive Disease" Henry T. Bahnson, M.D., Baltimore, Maryland Walter M. O'Brien, M.D., Moderator Lee B. Brown, M.D., Discussant	Convention Center
11:45 A.M.	Scientific Session "Management of Threatened Abortion" John L. Parks, M.D., Washington, D.C. Walter M. O'Brien, M.D., Moderator William E. Crisp, M.D., Discussant	Convention Center
12:15 P.M. 1:15 P.M.	Panel Discussion . . . "Orthopedic Problems in the Aged" Philip G. Derickson, M.D., Moderator John H. Ricker, M.D. "Hand and Wrist Problems in the Aged" Christopher A. Guarino, M.D. "Osteoporosis and Compression Fractures of the Spine in the Aged" Thomas H. Taber, Jr., M.D. "Present Day Trends in Treatment of Hip Fractures in the Aged" Warren Day Eddy, Jr., M.D. "Management of Shoulder Fractures in the Aged"	Convention Center

10TH ANNUAL CANCER SEMINAR

of the Arizona Division
American Cancer Society
March 15-17, 1962
Westward Ho Hotel
Phoenix, Arizona

CARCINOMA OF THE BREAST: Michael Shimkin, M.D. — National Institute of Health; Isidor Ravdin, M.D. — University of Pennsylvania; David Wood, M.D. — University of California.

TUMORS OF CHILDREN: Ovar Swenson, M.D. — Tufts College, Boston, Mass.; Benjamin H. Landing, M.D. — Children's Hospital Society, Los Angeles, California.

SKIN TUMORS: Herbert Z. Lund, M.D. — Moses H. Cone Memorial Hospital, Greensboro North Carolina.

RESEARCH: Roland K. Robins, Ph.D. — Arizona State University; Arthur Vorwald, M.D. — Wayne University; Bertel Bjorklund, M.D. — Laborator Vid Statens Bakteriologiska, Laboratorium-Stockholm, Sweden.

PERFUSION: Donald Rochlin, M.D. — U.C. L.A.; Keith Reemtsma — Tulane University; Herbert Z. Lund, M.D. — Greensboro, North Carolina.

Future Medical Meetings and Postgraduate Education

THE SOUTHWESTERN SURGICAL CONGRESS FOURTEENTH ANNUAL MEETING

The Southwestern Surgical Congress, which covers eleven states, will hold its Fourteenth Annual Meeting April 2-5, 1962 at the Western Skies Hotel, Albuquerque, New Mexico. Members of the Congress will present papers, and in addition lectures will be given by the following guest speakers:

Paul R. Lipscomb, M.D., Orthopedic Section, Mayo Clinic — "Unsolved Problems of Tendons, Ligaments and Fascia," "Management of Fractures of Hand and Wrist"

Chester McVay, M.D., Professor of Surgery, University of South Dakota — "Inguinal Hernioplasty," "Abdominal Incision — A Philosophy"

Earl J. Boehme, M.D., Assistant Professor of Surgery, Medical Evangelist School, Los Angeles, California — Paper on Carcinoma of the Colon and a paper on Thyroid Disease.

John Stehlin, Jr., M.D., Assistant Professor of Surgery, M. D. Anderson Hospital, Houston, Texas — Two papers on Perfusion Techniques and Drugs.

REGIONAL MEETINGS Spring and Summer, 1962

March 15-17, 1962

Tenth Annual Cancer Seminar
Arizona Division
American Cancer Society
Phoenix, Arizona

March 26-30, 1962

Denver Obstetricians and Gynecologists
Society
Denver, Colorado

March 28-31, 1962

American Dermatological Association
Chandler, Arizona

April 2-5, 1962

Southwestern Surgical Congress
Albuquerque, New Mexico

April 6-14, 1962

American Academy General Practice Annual
Meeting
Las Vegas, Nevada

April 25-28, 1962

Arizona Medical Association
Scottsdale, Arizona

April 27-28, 1962

Western Colorado Spring Clinic
Grand Junction, Colorado

May 9-10, 1962

Weld County Medical and Surgical Clinics
Greeley, Colorado

May 9-11, 1962

New Mexico Medical Society Annual Meeting
Hobbs, New Mexico

May 14-16, 1962

Fitzsimmons General Hospital MEND
(Medical Education for National Defense)
Symposium
Denver, Colorado

May 29-June 2, 1962

Colorado University Medical School and
Colorado Heart Association 10th Annual
Western Cardiac Conference and American
College of Cardiology
Denver, Colorado

June 25-27, 1962

Colorado University School of Medicine
Fundamental Seminar
Denver, Colorado

June 27-30, 1962

Idaho State Medical Association
Sun Valley, Idaho

July 10-13, 1962

University of Colorado Medical School
Ophthalmology
Estes Park, Colorado

July 13-14, 1962

16th Annual Rocky Mountain Cancer
Conference
Denver, Colorado

July 19-21, 1962

University of Colorado
Dermatology
Denver, Colorado

July 30-August 3, 1962

University of Colorado
Otology
Estes Park, Colorado

Future Medical Meetings and Postgraduate Education

THE ANNUAL MEETING OF ARIZONA TUBERCULOSIS AND HEALTH ASSOCIATION, INC. AND ARIZONA THORACIC SOCIETY

ATHA-ATS Banquet
Awards
F. K. Steiner Sr., Guest
Speaker

SATURDAY — APRIL 7th

9:00 a.m. Registration
9:30-12 noon Business Meeting
Reports
Election of Directors
12:15 p.m. Luncheon
Guest Speaker
2:00-4:00 p.m. Program
“Protecting the Family Circle”
Panel
4:30 p.m. New Motion Picture
6:30 p.m. ATHA Board of Directors
Business Meeting
7:30 p.m. “No Host” Hospitality Hour

SUNDAY — APRIL 8th

Arizona Thoracic Society

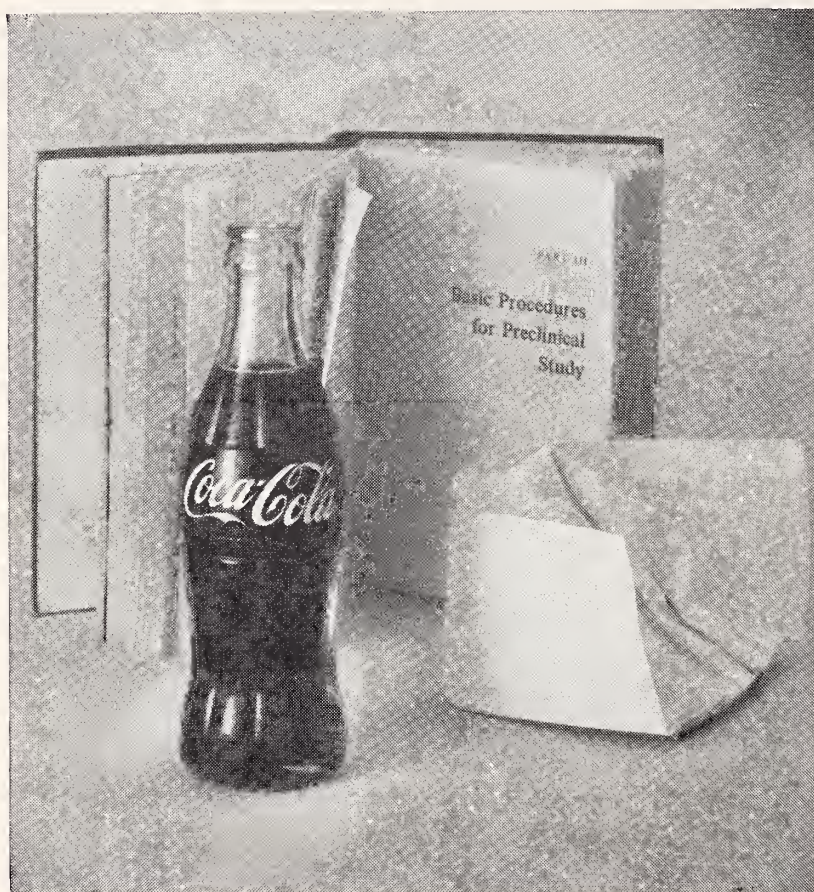
8:00 a.m. Breakfast and Business Meeting
9:00-12 noon Scientific Program.

FURTHER PROGRAM DETAILS WILL BE
AVAILABLE IN ADVANCE.

PLEASE NOTE!! The special rates are available to those making reservations through ATHA, P. O. Box 5155, Phoenix 10, Arizona, on or before March 30, 1962. *Rates per night* (tax included) — Single \$7.76 — Double \$9.83 — Twin \$11.38.

1962 Annual Meeting Committee

Mrs. Julia Munch, R.N.
Matthew J. Noon, M.D.
Ralph I. Peterson
F. K. Steiner, Jr., Chairman



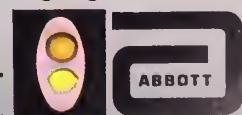
When too many tasks
seem to crowd
the unyielding hours,
a welcome
“pause that refreshes”
with ice-cold Coca-Cola
often puts things
into manageable order.





If you had to make your own children's multivitamins

chances are you'd try to make them very much like our new Vi-Daylin® Chewable with Entrapped Flavor. Entrapped Flavor means a better tasting chewable children's multivitamin; one with no vitamin aftertaste. Here's why: 1. We coat all the vitamins in a digestible film that does not dissolve until it reaches the gastrointestinal tract. This means that unpleasant strong vitamin tastes are not released in the mouth, but in the g-i tract where they are most quickly absorbed. 2. We make certain that every Vi-Daylin Chewable tablet tastes citrus sweet and good to every patient, everytime; we coat the flavoring oils in each tablet in a water soluble film. This film dissolves immediately in the mouth, releasing the full bouquet of our citrus-candy flavoring agents. Now you know why little patients always taste the flavor, never the vitamins, when you prescribe new Vi-Daylin Chewable. And the formula's all you'd expect, with reasonable amounts of A & D. Taste test them yourself and you'll prescribe **VI-DAYLIN CHEWABLE** regularly and soon.



Profile of a multivitamin



New Vi-Daylin Chewable —with entrapped flavor

New Formula

In recognition of recent medical thinking, we've reduced the vitamin D in our formula from 20 mcg. (800 units) to 10 mcg. (400 units). At the same time, we've increased the vitamin C content from 40 mg. to 50 mg. per tablet and per 5-cc. lemon-candy teaspoonful.

All Other Elements Remain at Their Previous Level.

Vitamin A
(3000 units) 0.9 mg.
Thiamine
Mononitrate 1.5 mg.
Riboflavin 1.2 mg.

Cobalamin (B₁₂) . . . 3 mcg.
Nicotinamide 10 mg.
Pyridoxine
Hydrochloride 1 mg.

New Low Price

In quantities of 100 tablets our new Chewable costs less than 4¢ a tablet and the normal dosage is one tablet daily. No financial hardship for your patients when you prescribe or recommend Vi-Daylin.

New Shape, New Color, New Bottle

New Vi-Daylin Chewable tablets are football shaped. This shape got a high degree of acceptance in our taste-tests and

seems to have an intrinsic interest for children. The orange color ties in with the mild, sweet citrus flavor. And the wide-mouthed new bottle looks handsome on the table.

Taste-Test New Vi-Daylin Chewable Yourself

Won't you taste-test new Vi-Daylin Chewable multivitamins yourself? We're certain you'll be pleasantly surprised at their sweet good taste. They're the candy-flavored multivitamins with *entrapped flavor* . . . little folks taste the candy flavor, never the vitamins.



In
intestinal
"grippe"

prompt
4 way
check of
diarrhea

- ✓ Curbs excessive peristalsis
- ✓ Adsorbs toxins and gases
- ✓ Soothes inflamed mucosa
- ✓ Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: Each 15 cc. (tablespoon) contains:

Sulfaguanidine U.S.P. 2 Gm.
Pectin N.F. 225 mg.
Kaolin 3 Gm.
Opium tincture U.S.P. 0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

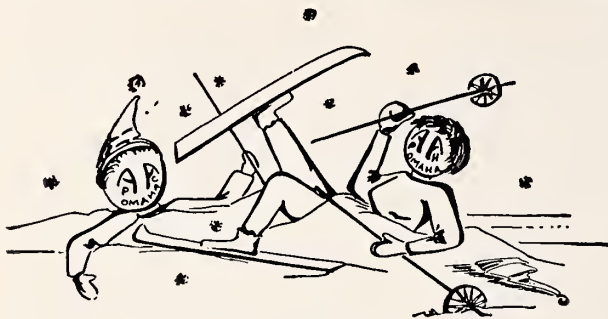
Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: Bottles of 16 fl. oz. (raspberry flavor, pink color)
Exempt Narcotic. Available on Prescription Only.

Winthrop
LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.





Protection Against Loss Of Income From
Accident & Sickness As Well As Hospital
Expense Benefits For You And All Your
Eligible Dependents.



PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book
sent to you FREE upon request.

Serving Arizona
Health Needs
Since 1908

Ryan-Evans
DRUG STORES

Phoenix - Tucson - Scottsdale - Maryvale

Glendale - Sunnyslope - Tempe - Globe

Casa Grande - Miami - Wickenburg

paf

DOUCHE POWDER

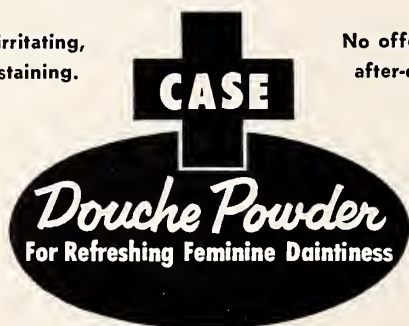
Buffered to control a
normal vaginal pH.

P.A.F.'s low surface ten-
sion increases penetra-
tion into the vaginal
rugae and dissolution of
organisms including tri-
chomonas and fungus.

P.A.F.'s high surface activity liquifies viscus
mucus on vaginal mucosa, releasing accumu-
lated debris in the vaginal tract.

Non-irritating,
non-staining.

No offensive
after-odor.



G. M. Case Laboratories — San Diego, Calif.

HOBBY HORSE RANCH SCHOOL

A School For Exceptional Children

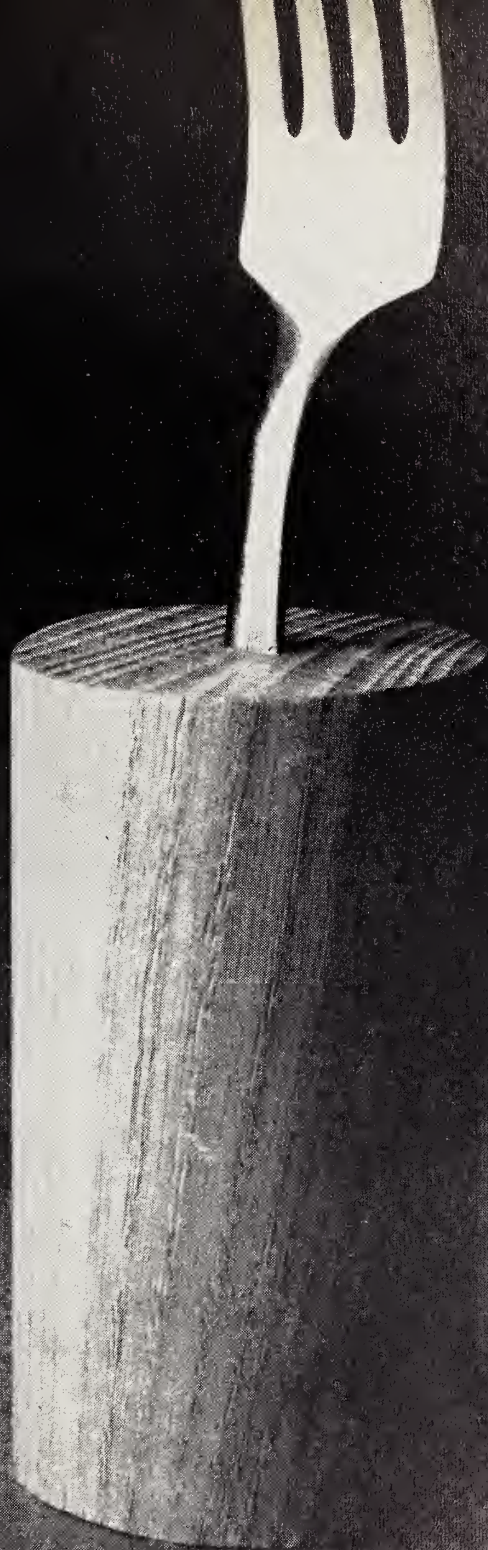
The Hobby Horse Ranch School is both home
and school for a small group of children. It
welcomes the child who is mentally retarded
and physically handicapped as well as the
backward child who suffers no physical handi-
cap.

The Hobby Horse Ranch School is a branch
of Fairview School in Fishkill, New York which
was established in 1936.

Directors: Blanche C. Lightowler, B.A.

Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.



in arthritis: vitamins are therapy

In dealing with the chronic stress of arthritis the physician often faces the problem of nutritional imbalance. High potency B and C supplementation is needed for rapid replenishment of tissue stores of these water-soluble vitamins. STRESSCAPS meet this need and help support the natural metabolic defenses in the disease. Supplied in decorative "reminder" jars of 30 and 100.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.



STRESSCAPS®

Stress Formula Vitamins Lederle

Each capsule contains:

Vitamin B ₁ (Thiamine Mononitrate)	10 mg.
Vitamin B ₂ (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B ₆ (Pyridoxine HCl)	2 mg.
Vitamin B ₁₂ Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.



At your store
or call

AM 4-0221

for
FREE
Home Delivery

**No Salt Free Diet is
Complete Without ...**

Crystal Distal

STEAM DISTILLED WATER

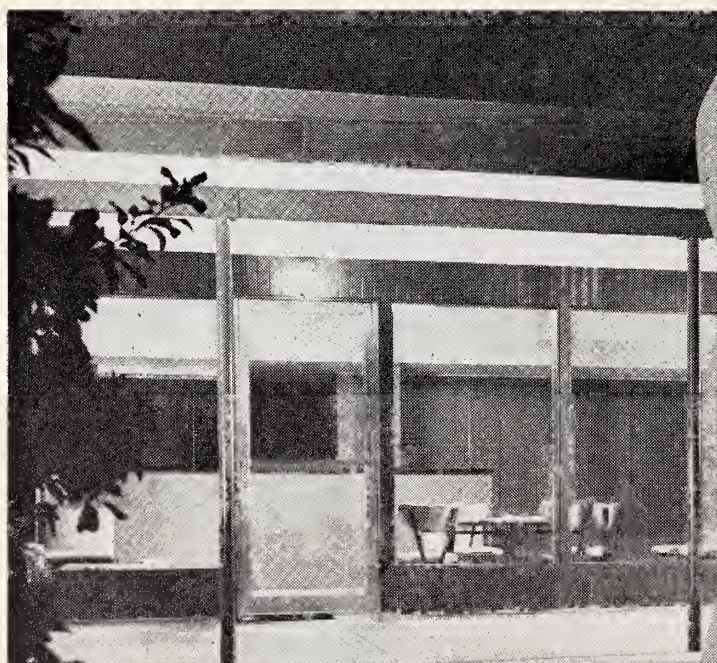
**Scientifically Processed
and Mineral Free**

The purest water available.



**CRYSTAL
Bottled
WATERS**

Naturally Better for You



**CAMELBACK
PROFESSIONAL
BUILDING**

ROBERT L. BEAL, M.D.
OTTO L. BENDHEIM, M.D.
PAUL M. BINDELGLAS, M.D.
HAL J. BREEN, M.D.
LEE S. COHN, M.D.
T. RICHARD GREGORY, M.D.
WILLIAM B. HAEUSSLER, M.D.
DERALD G. MAY, M.D.
HAROLD E. McNEELY, Ph.D.
ROBERT C. SHAPIRO, M.D.
WILLIS L. STRACHAN, M.D.
JOHN R. ZELL, M.D.

*general psychiatry and neurology
child psychiatry
psychoanalysis
clinical psychology
psychiatric social work
and family counselling*


**5051 NORTH 34th STREET
PHOENIX 18, ARIZONA
AM 4-4111**

POST-EZE SYSTEMS ARE AVAILABLE FOR:



- ★ ACCOUNTS RECEIVABLE
- ★ ACCOUNTS PAYABLE— PURCHASES
- ★ ACCOUNTS PAYABLE — CASH DISBURSEMENT

Now, small- and medium-size offices can effect the economies of mechanized accounting *without buying machines or employing specialized operators.*

 **POST-EZE** simplified plans save up to 66% of time, eliminate transcription errors, and keep all records up-to-date and in balance, because: —

- ONE writing posts all records
- ONE simple proof proves all records

To Learn How you will save up to 66% (it only takes 10 minutes)

CALL FOR TRAINED REPRESENTATIVE

ALpine 4-6611
3111 N. 29th Avenue
PHOENIX, ARIZONA

Loftin's

BUSINESS FORMS CO.

PRINTING - LITHOGRAPHY - ROTARY

MAin 2-2446
604 N. 4th Avenue
TUCSON, ARIZONA

For all YOUR DRUG needs-

Phone MAC
ALpin 4-2606
or
ALpin 2-1573
In Arizona Since 1920

FAST FREE DELIVERY

MACALPINE'S

THE *Rexall* STORE • 2303 N. 7th ST.

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR
CONDITIONING FOR YEAR ROUND COMFORT

*The Franklin
Hospital*

Hospital License No. 71
Registered A.M.A.
Member A.H.A.

367 No. 21st Avenue
PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751

WAYLAND

PRESCRIPTION PHARMACIES

TWO CONVENIENT LOCATIONS

NORTH CENTRAL MEDICAL BLDG.

2021 N. Central

And

PROFESSIONAL BUILDING

13 E. Monroe

Phoenix, Arizona

CITY WIDE DELIVERY

PHARMACY DIRECTORY

Your Prescription Store
DIERDORF PHARMACY

Phone BR 5-5212
2315 N. 24th St. Phoenix, Arizona
Milburn F. Dierdorf

In Scottsdale call
Lute's Scottsdale Pharmacy

For
PRESCRIPTIONS
WH 5-8420 — WH 5-8429
Next to the 1st National Bank

SRUTWA PHARMACIES, INC.

WH 5-3791
Scottsdale Medical Center
218 E. Stetson Drive
Scottsdale, Arizona

CLASSIFIED

General practice established forty-two years
grosses \$36,000 per year. Can do \$50,000
with GYN and OB and surgery. Terms can
be arranged. Spanish an advantage.

Write 607 West 6th
San Pedro, Calif.
A. J. LANGAN, M.D.



DISTRICT NO. 1

ARIZONA STATE NURSES ASS'N.

MRS. MARJORIE E. KASUN, R.N.
Registrar

Nurses' Professional Registry

703 Professional Bldg. — Phoenix — AL 4-4151

HILLCREST MEDICAL CENTER, INC.

Established 1921

- General Medical
- Orthopedic
- Acute or Chronic
- Post-Operative
- Geriatric
- Convalescent
- Non-Sectarian
- Medical Doctor of your choice

LISTED by American Hospital Association

24 Hr. Professional Nursing — R.N.'s on all shifts.
Phone: MA 3-7591

1501 N. 3rd Ave. Tucson, Arizona

Alberta M. Lovett, President

Charles H. Schmid, Treasurer

Katharine C. Schmid, Director, Admission-Patient Services

DOCTORS' CENTRAL DIRECTORY

Helen M. Barrasso, R.N., Director
For Emergencies or in Absence of Your Doctor
CALL EA 7-7471

At Your Service 24 Hours Daily

3029 E. 2nd St. Tucson, Arizona

"Established 1932"

BUTLERS REST HOME

• Bed Patients and Chronics

- Television
- 24 Hour Nursing Care
- Excellent Food
- State Licensed

802 N. 7th St. Phoenix, Arizona
Telephone AL 3-2592

LABORATORIES

THE DIAGNOSTIC LABORATORY

*Complete Medical Laboratory Service, X-Ray Diagnosis
Radiation Therapy, Radioactive Isotopes*



DEPARTMENT OF PATHOLOGY

MAURICE ROSENTHAL, M.D.
GEORGE SCHARF, M.D.
SEYMOUR B. SILVERMAN, M.D.
BLAND GIDDINGS, M.D.

DEPARTMENT OF RADIOLOGY

MARCY L. SUSSMAN, M.D.
E. LAWRENCE GANTER, M.D.

Diplomates of the American Boards of PATHOLOGY and RADIOLOGY

1130 E. McDowell Rd.

Phoenix, Arizona

Phone AL 8-1601

Information, Price Lists and Mailing Containers upon request.

Medical Center X-Ray and Clinical Laboratory

1313 North 2nd Street
Phoenix, Arizona
Phone ALpine 8-3484

AND

Professional X-Ray and Clinical Laboratory

510 Professional Bldg.
Phoenix, Arizona
Phone ALpine 3-4105

DIAGNOSTIC X-RAY

X-RAY THERAPY

RADIUM THERAPY

CLINICAL PATHOLOGY

TISSUE PATHOLOGY

ELECTROCARDIOGRAPHY

BASAL METABOLISM

R. Lee Foster, M.D., F.A.C.R., F.A.C.P., Director

Martin L. List, M.D., Radiologist

Diplomates of American Board of Radiology

Lorel A. Stapley, M.D., Consultant Pathologist

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy
American College of Chest Physicians
15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
Fellow, American College of Allergists
Fellow, American Academy of Allergy
31 W. Camelback Road CR 7-3337
Phoenix, Arizona

Pediatric Allergy

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists

322 W. McDowell Rd.

PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY
Diplomate of American Board of
Dermatology and Syphilology
Phone ALpine 3-5264
105 W. McDowell Road Phoenix, Arizona

WILLIAM SNYDER, M.D.

Diplomate of the American Board of Dermatology
Diseases of the Skin
Skin Cancer — Cutaneous Allergy
2021 N. Central Ave. — ALpine 3-8383
PHOENIX, ARIZONA

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S.

Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

MALIGNANT DISEASE

JAMES M. OVENS, M.D.

F.A.C.S .F.I.C.S.

Diplomate American Board of Surgery
Cancer and Tumor Surgery
X-ray and Radium Therapy
333 W. Thomas Road Phone 279-7301
Phoenix 13, Arizona

A. L. LINDBERG, M.D.

Neoplastic Diseases
Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona

Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC

ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D., F.A.C.S.* — A. L. Swenson, M.D.,
F.A.C.S.* — Ray Fife, M.D., F.A.C.S.* — Sidney L. Stovall, M.D.,
F.A.C.S.* — Thomas H. Taber, Jr., M.D., F.A.C.S.*
Robert A. Johnson, M.D.

*Diplomates of the American Board of Orthopedic Surgery.

2620 No. 3rd Street — Phoenix, Arizona — CR 7-6211

PHYSICIANS' DIRECTORY

PROCTOLOGY

WALLACE M. MEYER, M.D.

PROCTOLOGY

Park Central Medical Bldg.

Phone CR 4-5632

550 W. Thomas Road — 216 Patio B

Phoenix, Arizona

JAMES T. JENKINS, M.D.

Fellow American Proctologic Society

Fellow American College of Surgeons

Fellow International College of Surgeons

Practice Limited to Diseases of the Anus, Rectum
and Colon

2021 N. Central Ave.

Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

CARL BREITNER, M.D.

Psychiatry

AL 2-9108

1515 N. 9th St.

Phoenix, Arizona

LEO RUBINOW, M.D.

PSYCHIATRY

AM 6-0630

224 E. Thomas Rd.

Phoenix, Arizona

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.

SPEECH PATHOLOGIST

Advanced Member

American Speech and Hearing Association

Diagnoses Speech and Swallowing Therapy

240 W. Osborn Rd.

Phone AM 5-0071

Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P.

MARTIN L. LIST, M.D., Radiologist

Diplomates of American Board of Radiology

Diagnostic Roentgenology, X-Ray and Radium Therapy

510 Professional Bldg.

1313 N. Second St.

Phone ALpine 3-4105

Phone ALpine 8-3484

Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.

Diplomate of American Board of Radiology

E. LAWRENCE GANTER, M.D.

Diplomate of American Board of Radiology

DIAGNOSTIC RADIOLOGY

THERAPEUTIC RADIOLOGY

RADIOISOTOPES

1130 E. McDowell Rr.

Telephone ALpine 8-1601

Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.

123 South Stone Avenue

Tucson, Arizona

Office Phone MA 2-3371

Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.

GENERAL SURGERY

Certified by the American Board of Surgery

550 W. Thomas Road

Phone CRestwood 4-2081

Phoenix, Arizona

INDEX TO ADVERTISERS

- Abbott Laboratories9A, 10A, 83A, 84A
 American Tobacco Co.44A
 Ames Co., Inc.Inside Back Cover
 Bristol Laboratories28A, 39A
 Brown Pharmaceutical Co.43A
 Burroughs-Wellcome Co., Inc.....36A, 37A, 62A
 Butlers Rest Home90A
 Camelback Hospital8A
 Camelback Professional Building88A
 Case, G. M. Laboratories, Inc.86A
 Classified Advertising90A
 Coca Cola82A
 Crystal Bottled Waters88A
 Doctors Directory90A
 Endo Laboratories14A
 Franklin Hospital89A
 General Electric Co. — X-Ray Div.40A
 Glenbrook Laboratories51A
 Hillcrest Medical Center90A
 Hobby Horse Ranch School86A
 Lederle Laboratories59A, 68A, 69A, 87A
 Lilly, Eli & Co.Front Cover, 42A
 Loftins Business Forms89A
 Lorillard, P. & Co.67A
 MacAlpine Drugs89A
 Medical & Dental Finance Bureau75A
 National Casualty Co.13A
 Nurses Directory90A
 Organon, Inc.70A
 Parke-Davis & Co.Inside Front Cover, 1A
 PBSW Supply Company94A
 Pfizer Laboratories52A, 53A, 54A, 65A, 66A
 Pharmacy Directory90A
 Physician's Casualty Assn.86A
 Robins, A. H. & Co., Inc.15A, 56A, 63A
 Roche LaboratoriesBack Cover
 Ryan Evans Drugs86A
 Schering Corp.41A, 64A
 Searle, G. D. & Co.35A
 Squibb, E. R. & Sons Co.11A, 60A, 61A
 Upjohn, The Co.12A, 13A
 Valley National Bank54A
 Wallace Laboratories6A, 55A
 Wayland Drugs89A
 White Angel Inn4A
 Winthrop Laboratories2A, 16A, 45A, 46A,
 47A, 48A, 85A

JUST WHAT THE DOCTOR ORDERED . . .



INSTANT COPY PAPER

for use on your Thermo-fax machine

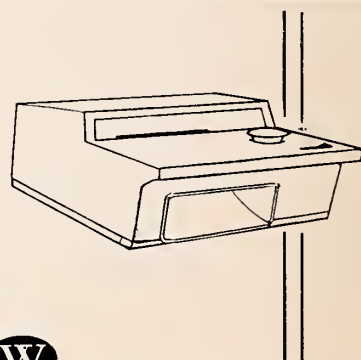
The new Copy Paper to give you:

SHARP COPIES . . . every period shows up!

TEAR-RESISTANT . . . durable, won't become brittle!

LONG-LASTING COPIES . . . Always fresh, fade resistant!

See For Yourself! Use It!



PBSW

OFFICE EQUIPMENT CENTER

801 W. INDIAN SCHOOL RD. • PHOENIX, ARIZ.

AM 4-4141

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE

UNITED STATES AND MEXICO



Volume 19

Number 4

April, 1962

U.C. MEDICAL CENTER LIBRARY

APR 25 1962

San Francisco, 22



A CASE FOR HALDRONE®

(paramethasone acetate, Lilly)

In acute cases of **ALLERGY**, Haldrone produces rapid remission of symptoms with little adverse effect on electrolyte metabolism.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.



240030

Suggested daily dosage in hay fever:
Initial suppressive dose. . . 4-8 mg.
Maintenance dose . . . 2-4 mg.

Supplied in bottles of 30, 100, and 500 tablets:

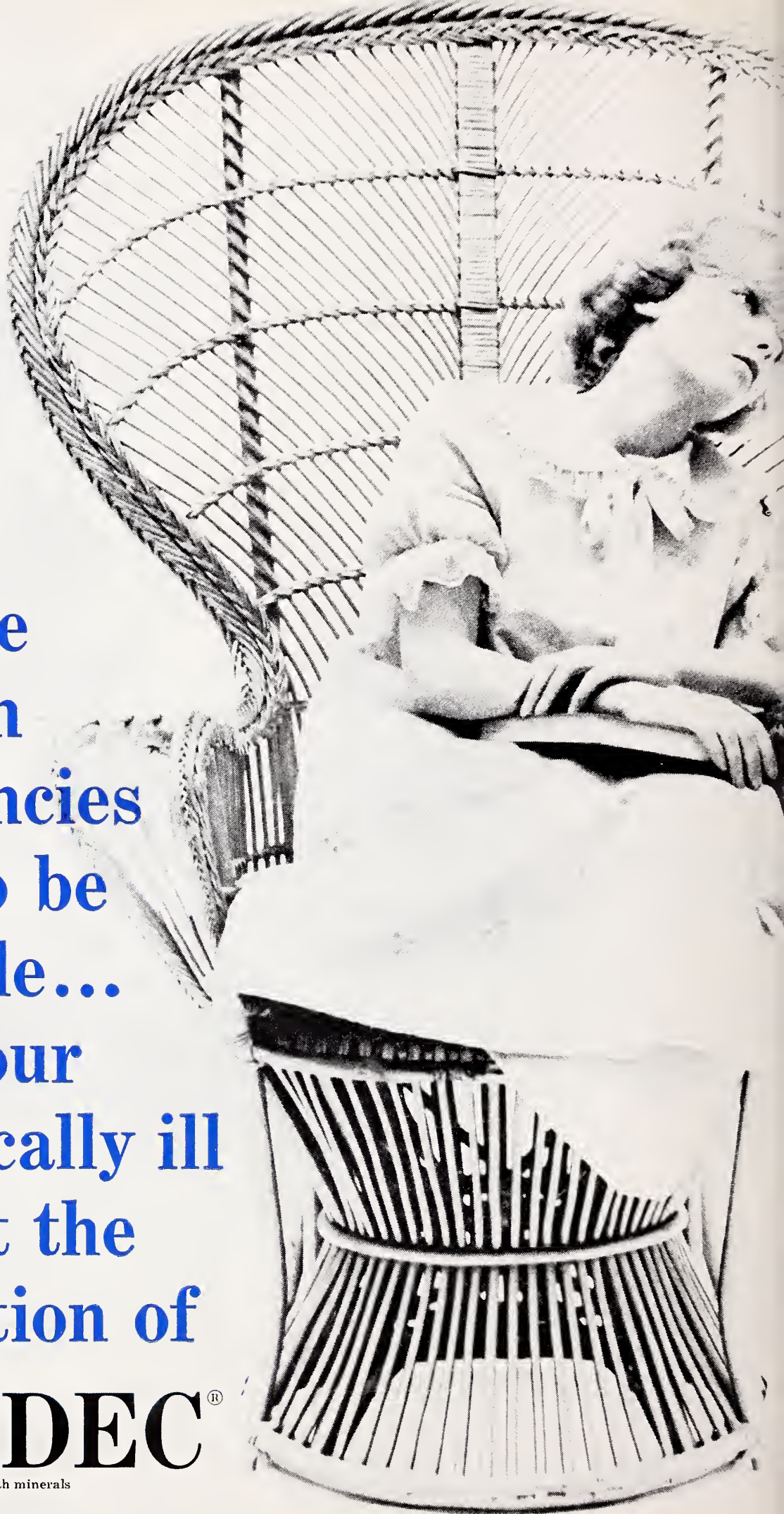
1 mg., Yellow (scored)
2 mg., Orange (scored)

**71ST ANNUAL MEETING SCOTTSDALE, ARIZONA
APRIL 25, 26, 27, 28, 1962**

because
vitamin
deficiencies
tend to be
multiple...
give your
chronically ill
patient the
protection of

MYADEC®

high-potency vitamin formula with minerals



It is generally accepted that diseases of long standing and other conditions of physiologic stress may produce a need for additional vitamins. MYADEC is designed to supply that need. Just one capsule a day provides therapeutic potencies of 9 vitamins, plus selected minerals normally present in body tissues. MYADEC is also useful for the *prevention* of vitamin deficiencies in patients whose usual diets are lacking in these important food factors.

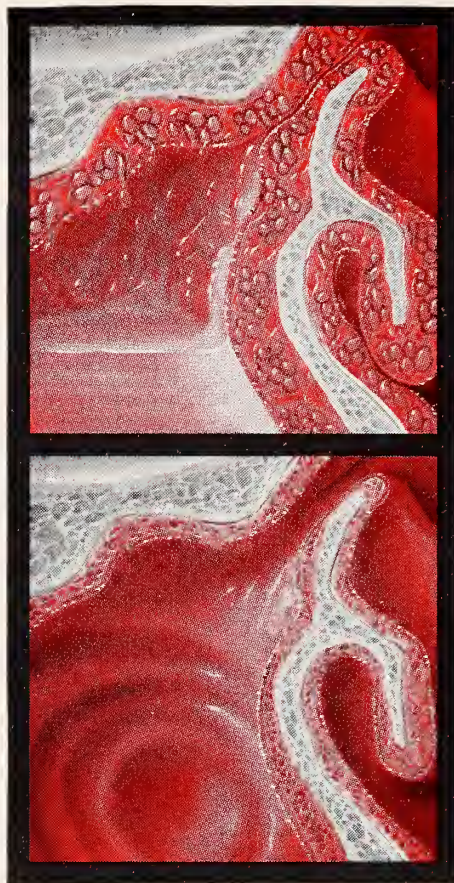
Each MYADEC capsule contains: *Vitamins*: Vitamin B₁₂, crystalline—5 mcg.; Vitamin B₂ (riboflavin)—10 mg.; Vitamin B₆ (pyridoxine hydrochloride)—2 mg.; Vitamin B₁ mononitrate—10 mg.; Nicotinamide (niacinamide)—100 mg.; Vitamin C (ascorbic acid)—150 mg.; Vitamin A—(7.5 mg.) 25,000 units; Vitamin D—(25 mcg.) 1,000 units; Vitamin E (*d*-alpha-tocopheryl acetate concentrate)—5 I.U. *Minerals* (as inorganic salts): Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg. Bottles of 30, 100, and 250.

PARKE-DAVIS

83562

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

In colds
and
sinusitis
unsurpassed
in providing
drainage
space
without
chemical
harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE[®]

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.¹⁻³ Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (1½%) and children (¾%), in dropper bottles of ⅛, ¼ or 1 per cent.

Winthrop

LABORATORIES
New York 18, N. Y.

1. Grant, L. E.: Coryza and nasal sinus infections, *Clin. Med. & Surg.* 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): *Current Therapy* 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, *Journal-Lancet* 79:535, Dec., 1959.

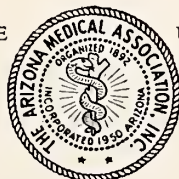
Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE

UNITED STATES AND MEXICO

April, 1962



Vol. 19, No. 4

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

BOARD OF DIRECTORS MEETING — MINUTES — February 4, 1962.....21A

ORIGINAL ARTICLES

CORPORATE TAX SHELTERS FOR DOCTORS65

Edward Jacobson

THE PRESENT AND POTENTIAL USEFULNESS OF CARDIOPULMONARY
LABORATORY73

Thomas P. K. Lim, M.D., Ph.D.

THE EFFECT OF CARBON MONOXIDE ON BLOOD SUGAR77

Edward L. Breazeale; James D. Van Horne

PAPILLARY ADENOCARCINOMA OF THE THYROCLOSSAL DUCT CYST —
Review of the Literature and a Case Report80

Joseph Clawson, M.D.; Howard Kimball, M.D., F.A.C.S.

AN APPROACH TO THE TREATMENT OF JUVENILE DELINQUENCY82

Carl Breitner, M.D.

CONGENITAL TRACHEOESOPHAGEAL FISTULA WITHOUT ESOPHAGEAL
ATRESIA88

John A. Garibpy, M.D.; Carl J. Impellitier, M.D.

ROENTGENOLOGY SECTION

CEREBRAL ARTERIO-VEINUS FISTULA — A Case Report90

Edward H. Bregman, M.D.; Dean Nichols, M.D.; Robert T. Mason, M.D.;

George T. Hoffmann, M.D.

VALUE OF RADIATION THERAPY IN BREAST CANCER94

Robert J. Johnson, M.D.

PRESIDENT'S PAGE

CLARENCE E. YOUNT, Jr., M.D., — President-elect — ARMA47A

EDITORIALS

71ST ANNUAL STATE MEETING55A

Darwin W. Neubauer, M.D.

UNIFIED BLUE SHIELD56A

Clarence L. Robbins, M.D.

LETTERS TO THE EDITOR

D. B. Gilbert, M.D.56A

Carl A. Holmes, M.D.56A

TOPICS OF CURRENT MEDICAL INTEREST

PROFESSIONAL CORPORATION LEGISLATION61A

ARIZONA POISONING CONTROL INFORMATION CENTER — Isoniazid Poisoning.63A

MENTAL HEALTH CLINIC — SOUTHERN ARIZONA64A

ST. ELIZABETH OF HUNGARY — OUT-PATIENT CLINIC66A

DR. ARTHUR PRESENT INSTALLED PRESIDENT, AMERICAN COLLEGE
OF RADIOLOGY67A

FUTURE MEDICAL MEETINGS AND POSTGRADUATE EDUCATION

ARMA — 71st ANNUAL MEETING71A

ARIZONA PUBLIC HEALTH ASSOCIATION — ANNUAL MEETING77A

ARIZONA'S FIRST CONTINUING EDUCATION SEMINAR77A

DIRECTORY

OFFICERS AND COMMITTEES6A

SOCIEDAD MEDICA D ESTADOS UNIDOS DE PORTE AMERICA Y MEXICO.8A

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO8A

WOMAN'S AUXILIARY8A

INDEX TO ADVERTISERS84A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription \$5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.

blood pressure approaches normal more readily, more safely....simply with **Salutensin[®]** (hydroflumethiazide, reserpine, protoveratrine A—antihypertensive formulation)

Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"¹) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents²⁻⁸ provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron[®] (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide⁹; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide/rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron[®] (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

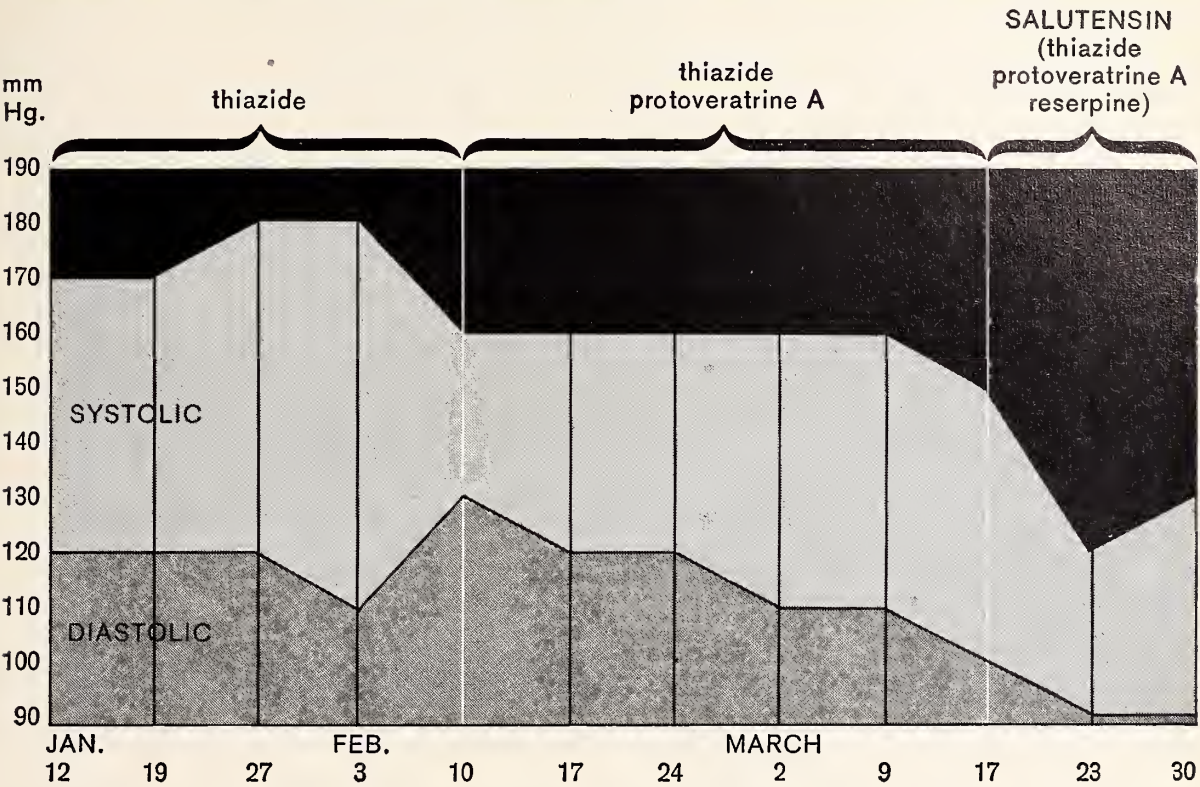
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide- rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

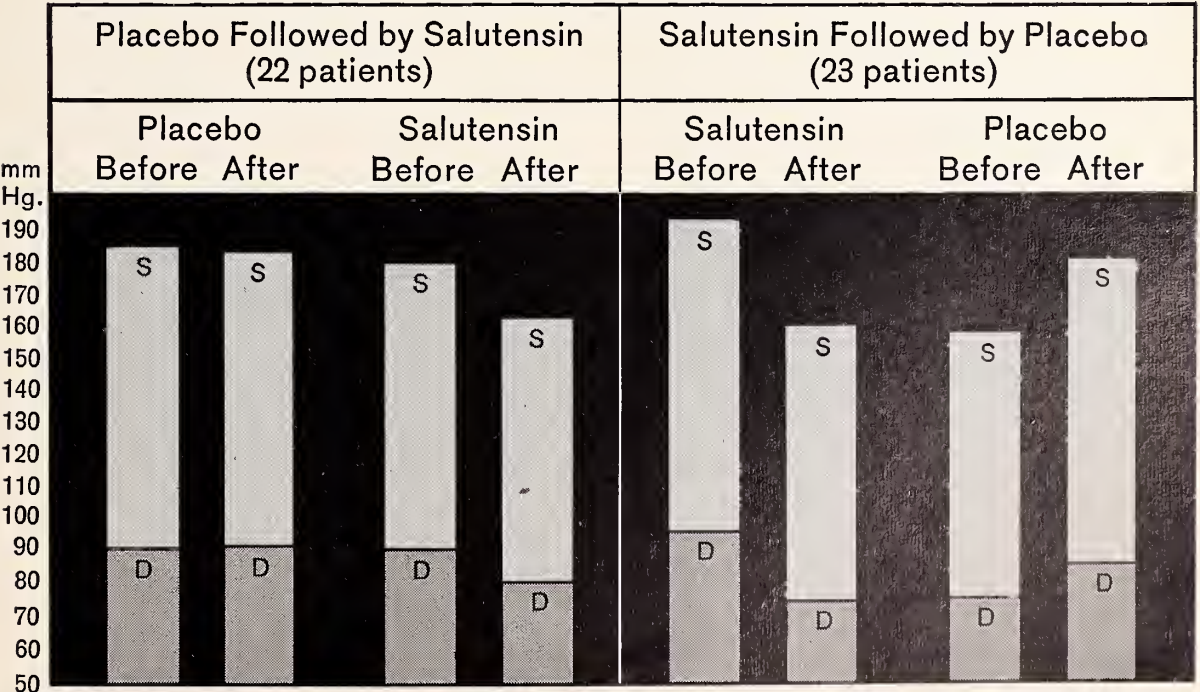
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures—Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.



Directory

COMMITTEES - 1961-62

THE ARIZONA MEDICAL ASSOCIATION, INC.
Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Leslie B. Smith, M.D.President
1130 E. McDowell Rd., Phoenix, Arizona
Clarence E. Yount, Jr., M.D.President-elect
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D.Vice President
116 N. Tucson Blvd., Tucson, Arizona
Paul L. Singer, M.D.Secretary
1313 N. Second Street, Phoenix, Arizona
Arthur V. Dudley, Jr., M.D.Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D.Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D.Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D.Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Orin J. Farness, M.D.Alternate Delegate to AMA
1535 N. Tucson Blvd., Tucson, Arizona
Dermont W. Melick, M.D.Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D.Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D.Central District
710 Professional Bldg., Phoenix, Arizona
W. Albert Brewer, M.D.Central District
1116 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D.Central District
926 E. McDowell Rd., Phoenix, Arizona
Wallace A. Reed, M.D.Central District
2021 N. Central Ave., Phoenix, Arizona
Noel G. Smith, M.D.Central District
3614 N. 15th Ave., Phoenix, Arizona
Leo L. Tuveson, M.D.Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D.Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D.Northwestern District
434 West Gurley Street, Prescott, Arizona
D. G. Moody, M.D.Southeastern District
101 Terrace Street, Nogales, Arizona
Earl R. Baldwin, M.D.Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D.Southern District
1613 N. Tucson Blvd., Tucson, Arizona
John R. Schwartzmann, M.D.Southern District
2415 E. Adams Street, Tucson, Arizona
James T. O'Neil, M.D.Southwestern District
113 West 2nd Street, Casa Grande, Arizona

DIRECTOR AT LARGE

Lindsay E. Beaton, M.D.Past President
1650 N. Campbell Ave., Tucson, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1962

APACHE: DeArmond Lindes, M.D., President, Box 272, Eagar;
Jerry T. Clifton, M.D., Secretary, General Delivery, Box
758, Showlow.
COCHISE: James S. Walsh, M.D., President, 631 Ninth St.,
Douglas; Harry C. Smith, M.D., Secretary, 910 Ninth St.,
Douglas.
COCONINO: John H. Caskey, M.D., President, 2725 E. Lakin
Drive, Flagstaff; J. Garland Wood, Jr., M.D., Secretary,
1215 N. Beaver Street, Flagstaff.
GILA: Theodore C. Harper, M.D., President, 703 Ash Street,
Globe; Thomas F. Moore, M.D., Secretary, Box 1207, Miami.
GRAHAM: Bruce N. Curtis, M.D., President, 618 Central Avenue,
Safford; Thomas W. Jensen, M.D., Secretary, 626 Sixth
Avenue, Safford.
GREENLEE: Hugh LaMaster, M.D., President, Box 1597, Clifton;
Howard W. Thomas, M.D., Secretary, Morenci Hospital,
Morenci.
MARICOPA: Jack E. Brooks, M.D., President, 2021 North Central
Avenue, Phoenix; Howard C. Lawrence, M.D., Secretary,
2021 N. Central Ave., Phoenix.
(Society Office - 2025 N. Central Ave., Phoenix)
MOHAVE: Walter Brazie, M.D., President, Masonic Building,
Kingman; John J. Standifer, M.D., Secretary, 412 E. Oak
St., Kingman.
NAVAJO: Leo L. Lewis, M.D., President, 101 S. Williamson St.,
Winslow; Theodore L. Lothman, M.D., Secretary, Box 397,
Holbrook.
PIMA: Delmer J. Heim, M.D., President, 116 N. Tucson Blvd.,
Tucson; Elliott E. Stearns, Jr., M.D., Secretary, 2442 E.
Elm St., Tucson.
(Society Office - 57 East Jackson St., Tucson)
PINAL: Glen H. Walker, M.D., President, 291 W. Wilson Ave.,
Coolidge; James H. Boyd, M.D., Secretary, 291 W. Wilson
Ave., Coolidge.
SANTA CRUZ: Zenas B. Noon, M.D., President, Gebler Bldg.,
Nogales; Charles S. Smith, M.D., Secretary, Gebler Building,
Nogales.
YAVAPAI: Albert O. Daniels, M.D., Box 1311, Prescott; William
R. Shepard, M.D., Secretary, 506 W. Gurley St., Prescott.
YUMA: Abe I. Podolsky, M.D., President, 1601 Fifth Ave.,
Yuma; Ellis V. Browning, M.D., Secretary, 407 16th Street,
Yuma.

NOTE: The President, President-elect and Secretary are ex-officio members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE: Paul B. Jarrett, M.D., Chairman (Phoenix); Walter Brazie M.D. (Kingman); Frank A. Shellenberger, Jr., M.D. (Tucson); Paul M. Singer, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Donald K. Buffmire, M.D., Chairman (Phoenix); Preston T. Brown, M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Carl H. Gans, M.D. (Morenci); Roland V. Murphy, M.D. (Tucson); Paul L. Singer, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Arthur V. Dudley, Jr., M.D., Chairman (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson).

EXECUTIVE COMMITTEE: Leslie B. Smith, M.D., President, Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Lindsay E. Beaton, M.D., Past-President, Chairman (Tucson); Carlos C. Craig, M.D. (Phoenix); Francis M. Findlay, M.D. (San Manuel); John F. Stanley, M.D. (Yuma); Oscar W. Thoeny, M.D. (Phoenix); Hugh C. Thompson, Jr., M.D. (Tucson); Florence B. Yount, M.D. (Prescott).

HISTORY & OBITUARIES COMMITTEE: John W. Kennedy, M.D., Chairman (Phoenix); Harold W. Kohl, M.D., (Tucson); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podolsky, M.D. (Yuma); Howell S. Randolph, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: John H. Ricker, M.D., Chairman (Phoenix); John F. Currin, M.D. (Flagstaff); Juan E. Fonseca, M.D. (Tucson); Oscar W. Friske, M.D. (Ajo); Charles P. Neumann, M.D. (Tucson); Robert W. Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Co-Chairman (Phoenix); MacDonald Wood, M.D., Co-Chairman (Phoenix); Derrill B. Manley, M.D. (Phoenix); John S. Carlson, M.D. (Nogales); Ben P. Frissell, M.D. (Phoenix); Paul B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); William B. Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D., Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix); Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: W. Albert Brewer, M.D., Chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: Wallace A. Reed, M.D., Chairman (Phoenix); Jack E. Brooks, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson); Maurice Rosenthal, M.D. (Phoenix); George A. Spikes, M.D. (Douglas).

PROCUREMENT & ASSIGNMENT COMMITTEE: Joseph M. Greer, M.D., Chairman (Phoenix); Robert N. Class, M.D. (Tucson); John F. Currin, M.D. (Flagstaff); Ruland W. Hus-song, M.D. (Phoenix); Robert M. Matts, M.D. (Yuma); Joseph P. McNally, M.D. (Prescott).

PROFESSIONAL COMMITTEE: Robert B. Leonard, M.D., Chairman (Phoenix); James D. Alway, M.D. (Phoenix); Otto L. Bendheim, M.D. (Phoenix); W. Albert Brewer, M.D. (Phoenix); Orin J. Farness, M.D. (Tucson); Ray Fife, M.D. (Phoenix); Richard B. Johns, M.D. (Phoenix); Earl J. Baker, M.D. (Phoenix); Henry P. Limbacher, M.D. (Tucson); George G. McKhann, M.D. (Phoenix); Herman S. Rhu, M.D. (Tucson); Paul J. Slosser, M.D. (Yuma); Charles A. L. Stephens, M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Ben B. Frissell, M.D., Chairman (Phoenix); Ernest A. Born, M.D. (Prescott); Clyde W. Kurtz, M.D. (Phoenix); William G. Payne, M.D. (Tempe); Harold J. Rowe, M.D. (Tucson); Delbert L. Secrist, M.D. (Tucson); Hugh M. Smith, M.D. (Tucson); Noel G. Smith, M.D. (Phoenix); Albert G. Wagner, M.D. (Phoenix); Roy O. Young, M.D. (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roland F. Schoen, M.D., Chairman (Casa Grande); Robert H. Bullington, M.D. (Phoenix); Howard W. Finke, M.D. (Superior); Charles H. Finney, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Ralph T. Irwin, M.D. (Yuma); Paul B. Jarrett, M.D. (Phoenix); John F. Kahle, M.D. (Flagstaff); J. Edwin Keppel, M.D. (Mesa); Clarence H. Kuhlman, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Clarence L. Robbins, M.D. (Tucson); Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Editor-in-Chief, Chairman (Tucson); R. Lee Foster, M.D. (Phoenix); John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Richard O. Flynn, M.D., Co-Chairman (Tempe); Clarence E. Yount, Jr., M.D., Co-Chairman (Prescott); James E. Brady, Jr., M.D. (Tucson); Richard E. H. Duisberg, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Richard B. Johns, M.D. (Phoenix); Fred H. Landeen, M.D. (Tucson); William H. Lyle, M.D. (Yuma); Arthur R. Nelson, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Edward Sattenspiel, M.D. (Phoenix); Roland F. Schoen, M.D. (Casa Grande); John R. Schwartzmann, M.D. (Tucson); William B. Steen, M.D. (Tucson).



when occupational allergies strike

Dimetane[®] Extentabs[®] CONTINUOUS 10-12 HOUR ACTION

parabromdylamine (brompheniramine) maleate 12 mg.

reliably relieve the symptoms...seldom affect alertness

Beauticians (and their customers) may develop allergies to henna, dyes and oils...housewives to dust and soap...farmers to pollens and molds. Most types of allergies — occupational, seasonal or occasional reactions to foods and drugs — respond to Dimetane. With Dimetane most patients become symptom free *and* stay

alert, and on the job, for Dimetane works...with a very low incidence of significant side effects. Also available in conventional tablets, 4 mg.; Elixir, 2 mg./5 cc.; Injectable, 10 mg./cc. or 100 mg./cc.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA
MAKING TODAY'S MEDICINES WITH INTEGRITY...
SEEKING TOMORROW'S WITH PERSISTENCE



WOMAN'S AUXILIARY TO THE ARIZONA MEDICAL ASSOCIATION — 1961-62 Board Members

PresidentMrs. Ian M. Chesser (Lu)
414 N. Country Club Road, Tucson, Arizona

President-ElectMrs. Frederick W. Knight (Mary)
618 Central Avenue, Safford, Arizona

1st Vice PresidentMrs. Clare W. Johnson (Mary Ann)
(Organization and Membership Chairman)
318 West Lawrence Road, Phoenix 13, Arizona

2nd Vice PresidentMrs. John Kahle (Rosemary)
(Program Chairman)
2412 N. Talkington, Flagstaff, Arizona

TreasurerMrs. Herbert D. Welsh (Lynn)
Route 8, Box 18, Tucson, Arizona

Recording SecretaryMrs. Robert G. Delph (Grace)
4 West 'D' Avenue, Glendale, Arizona

Corresponding Secretary ..Mrs. Bernard W. Simons, Jr. (Marjorie)
3423 East 4th St., Tucson, Arizona

Director (1 year)Mrs. Robert H. Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona

Director (1 year)Mrs. Robert Keller (Maren)
1229 Fifth Avenue, Safford, Arizona

Director (2 years)Mrs. William D. Nelson, Jr. (Ellen)
2808 Vista Lane, Yuma, Arizona

STATE COMMITTEE CHAIRMEN — 1961-62

American Medical Education FundMrs. Max Costin (Kay)
2648 E. Fourth Street, Tucson, Arizona

BulletinMrs. B. E. Lambrecht (Lila)
Box 1837, Miami, Arizona

By-LawsMrs. Jesse D. Hamer (Clarice)
1819 North 11th Avenue, Phoenix 7, Arizona

ChaplainMrs. W. Stanley Kitt (Abbie)
2043 E. Fourth Street, Tucson, Arizona

Community ServiceMrs. Thomas Rowley (Barbara)
114 South Miller Street, Mesa, Arizona

ConventionMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

Civil DefenseMrs. Paul Jarrett (Beverly)
501 East Pasadena, Phoenix 12, Arizona

FinanceMrs. Seymour I. Shapiro (Arline)
5433 E. 8th Street, Tucson, Arizona

Health CareersMrs. Earl R. Baldwin (Betty)
3320 North Martin Avenue, Tucson, Arizona

HistorianMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

LegislationMrs. Shaw McDaniel (Eleanor)
114 East Tuckey Lane, Phoenix 12, Arizona

Mental HealthMrs. John T. Clymer (Eloise)
201 West Flynn Lane, Phoenix 13, Arizona

NominatingMrs. Robert Cummings (Jerrye)
5830 East Arcadia Lane, Phoenix 18, Arizona

ParliamentarianMrs. John Eisenbeiss (Lucile)
99 West Northview, Phoenix 21, Arizona

Publications (Newsletter)Mrs. Hubert R. Estes (Mickie)
6911 Soyaluna Place, Tucson, Arizona

SafetyMrs. C. Selby Mills (Vivian)
1844 E. Keim Drive, Phoenix 16, Arizona

Student Nurse Loan Fund.....Mrs. Juan Fonseca (Virginia)
2505 Indian Ridge Drive, Tucson, Arizona

Workshop AdvisorMrs. Hiram D. Cochran (Mary)
35 Camino Espanol, Tucson, Arizona

COUNTY PRESIDENTS — 1961-62

Coconino CountyMrs. James Wenzel (Nancy)
2143 N. Navajo Drive, Flagstaff, Arizona

Gila CountyMrs. Charles Bejarano
1048 Adonis Avenue, Miami, Arizona

Maricopa CountyMrs. Richard B. Johns (Ruth)
508 W. Rose Lane, Phoenix 13, Arizona

Pima CountyMrs. Frederick J. Hirsch (June)
5817 E. Fourth Street, Tucson, Arizona

Yavapai CountyMrs. Donald Merkle (Helena)
810 Norris Road, Prescott, Arizona

Yuma CountyMrs. Ellis Browning (Olive)
2200 16th Place, Yuma, Arizona

SOCIEDAD MEDICA DE ESTADOS UNIDAS DE NORTEAMERICA Y MEXICO MEDICAL SOCIETY OF THE UNITED STATES & MEXICO

PresidentDr. Juan E. Fonseca
601 N. Wilmot, Tucson, Arizona

President-ElectDr. Eduardo Contreras Reyna
Marsella 125 Norte, Guadalajara, Jal., Mexico

Vice-PresidentDr. Robert E. Hastings
1014 N. Country Club Road, Tucson, Arizona

Secretary for the United StatesDr. Charles Kalil
200 East Monterey Way, Phoenix, Arizona

Secretary for MexicoDr. Fausto Zeron Medina
Avenida Alemania No. 535, Guadalajara, Jal., Mexico

Treasurer for the United StatesDr. Lucy Vernetti
2021 N. Central Avenue, Phoenix, Arizona

Treasurer for MexicoDr. Eduardo Gonzalez Murguia
Juarez 673, Guadalajara, Jal., Mexico

Exec. Secy for United StatesMr. Byron Browder
3008 E. 6th St., Apt. D., Tucson, Arizona

Exec. Secretary for MexicoMr. Alfredo Patron
Mazatlan, Sinaloa, Mexico

COORDINATING COMMITTEE COMITE COORDINATOR

Dr. Harry E. Thompson

Dr. Hector Gonzalez Guevara

Dr. Ignacio Chavez

Dr. W. R. Manning

Textbook after textbook, article after article and experience in practice after practice consistently have demonstrated the capacity of Demerol to produce satisfactory analgesia without weakening the intensity of uterine contractions. In fact, many observers have reported an apparent shortening of labor, particularly in the primipara.

Because it is well tolerated by both the mother and the newborn child, Demerol is generally considered one of the safest analgesics for use in obstetric practice.

In addition to satisfactory analgesia, a moderate sedative effect is obtained with large doses, and sleep is frequently induced between pains.

In 13,000 deliveries reported by 158 physicians, "Demerol was unquestionably the narcotic of choice during labor."

(Questionnaire, The Moternol and Child Welfare Committee, South Dakota State M. A., 1958)¹

"Demerol is our drug of choice for analgesia during labor."

(Posner, Fielding and Posner, Horlem Hospital, New York City)²

Demerol in combination with scopolamine "... offers the best means of securing analgesia and amnesia in labor with the least risk to the mother and child. ... Often one is amazed at the manner in which the cervix melts away under this form of medication."

(Beck and Rosenthel, State University of New York)³



COMFORT—with Safe Control—in Millions of Patients

DEMEROL®

THE ANALGESIC OF CHOICE
IN OBSTETRIC PRACTICE

Winthrop LABORATORIES • New York 18, N. Y.

For a Smooth Delivery...

DEMEROL

BRAND OF MEPERIDINE HYDROCHLORIDE

THE ANALGESIC OF CHOICE IN OBSTETRIC PRACTICE



DEPENDABLE ANALGESIA AND AMNESIA

Demerol with Scopolamine

"When combined with scopolamine, it [Demerol] can produce satisfactory amnesia-analgesia in over 90% of the mothers during labour."

U. S. Army Medical Research and Development Command, Hospital and Thurston M. Sch. 11

In one of the most commonly used technics, an initial dose of 100 mg. of Demerol and 1/150 grain of scopolamine is given intramuscularly when labor is established. Subsequently, 100 mg. of Demerol are given every four hours and 1/200 grain of scopolamine every three hours. "Within 15 or 20 minutes the pain is relieved and neither the frequency nor the intensity of the uterine contractions are diminished."

(British Medical Journal)

Demerol is "...an analgesic drug which relieves pain about as well as does morphine, and it has in addition an antispasmodic action which makes it a good preparation for use during labor. . . . It may be given alone but its effect is enhanced when it is used in combination with scopolamine, and the resultant amnesic effect is excellent."

(Lancet)

SIDE EFFECTS AND CONTRAINDICATIONS: Demerol hydrochloride is generally well tolerated and nontoxic in therapeutic doses. Side effects occur more frequently in ambulatory patients (who should therefore be specially cautioned) than in those confined to bed. Dizziness is the most common reaction. Nausea or vomiting occurs less frequently than after administration of morphine. Flushing of the face, sweating and dryness of the mouth are sometimes noted. More severe reactions are characterized by great weakness, syncope, profuse perspiration, marked dizziness, and nausea and vomiting. They usually can be prevented if the patient lies down promptly at the onset of side effects. Tolerance to side effects usually develops quickly if medication is continued in small doses (25 mg.). In contrast to morphine, respiratory depression occurs infrequently.

However, in patients with lesions that cause increased intracranial pressure, respiratory depression has been noted; therefore, the drug is considered to be contraindicated in such persons.

When Demerol with Scopolamine is used, idiosyncrasy to scopolamine may be encountered occasionally, producing the paradoxical effect of excitement, restlessness, hallucinations and delirium instead of sedation and amnesia. In addition, edema of the uvula, glottis and lips may be encountered occasionally in extremely hypersensitive patients.

Nalorphine (Nalline®) or levallorphan (Lorfan®) are considered to be specific antidotes against respiratory depression which may result from overdosage or unusual sensitivity to narcotics including Demerol.

1. Ranney, Brooks. *South Dakota J. Med. & Pharm.* 11:479, Dec., 1958.

2. Posner, L. B.; Fielding, W. L., and Posner, A. C. *Obst. & Gynec.* 2:81, July, 1953.

3. Beck, A. C., and Rosenthal, A. H. *Obstetrical Practice*, ed. 7, Baltimore, The Williams & Wilkins Company, 1958, pp. 1029, 1030.

4. Hershenson, B. B., and Reid, D. E. *Bull. Narcotics* 8:36, July-Sept., 1956.

5. Titus, Paul. *The Management of Obstetric Difficulties*, ed. 5, St. Louis, C. V. Mosby Co., 1955, p. 617.

PRINTED IN U. S. A. REVISED DECEMBER 1961 (11-1117)

DEMEROL Hydrochloride Solutions / for Parenteral Use:

50 mg. per ml.: Ampuls of 0.5, 1, 1.5 and 2 ml. (25 to 100 mg.); vials of 10 and 30 ml.; disposable syringes of 1 ml.

75 mg. per ml.: Disposable syringes of 1 ml.

100 mg. per ml.: Ampuls of 1 ml.; vials of 20 ml.; disposable syringes of 1 ml.

pH of Demerol 5% and 10% solutions in ampuls and vials is adjusted between 4.5 and 6.0 with sodium hydroxide or hydrochloric acid. Multiple dose vials of Demerol solution also contain metacresol 0.1 per cent as preservative.

Demerol with Scopolamine (50 mg. of Demerol HCl and 1/300 grain of scopolamine HBr per ml.): Ampuls of 2 ml.; vials of 30 ml. pH is adjusted between 4 and 5 with sodium hydroxide or hydrochloric acid.

DEMEROL Hydrochloride / for Oral Use:

Demerol hydrochloride tablets 50 mg.

Demerol hydrochloride tablets 100 mg.

Demerol hydrochloride elixir (50 mg. per 5 ml. teaspoon)—Pleasant banana flavor, nonalcoholic, Especially useful for children.

A.P.C. with Demerol tablets—For potentiated action each tablet contains: 200 mg. (3 grains) of aspirin, 150 mg. (2½ grains) of phenacetin, 30 mg. (½ grain) of caffeine, and 30 mg. (½ grain) of Demerol hydrochloride.

Subject to regulations of the Federal Bureau of Narcotics.

THE STANDARD **DEMEROL®**

for Controlled, Safe Analgesia in Obstetrics

New from

Saunders

1 Reid — Textbook of Obstetrics

A New Book!—Offers keen insight into the biologic aspects of birth

A fresh approach to obstetrics emphasizing biologic rather than mechanistic aspects. This valuable new book combines basic fundamentals of obstetrics with sound principles of patient management. It will help you solve many maternity problems—from early diagnosis of pregnancy to safe delivery. Look for features such as these: Detailed instructions on managing complications—Emphasis on fetal welfare as well as maternal safety—Help on understanding psychological problems of the expectant mother—Superb illustrations of normal and abnormal conditions,

techniques, instruments, etc. Topics include: *Medical and surgical diseases of pregnancy—Assessment of maternal and perinatal mortality—Shock, coagulation defects and acute renal failure—Physiology and mechanisms of labor in parent types of pelves—etc.*

By DUNCAN E. REID, M.D., William Lambert Richardson Professor of Obstetrics and Head of the Department of Obstetrics and Gynecology, Harvard University Medical School; Chief-of-Staff, Boston Lying-In Hospital. Illustrated by EDITH TAGRIN. 1087 pages, 7"x10", with 442 illustrations. About \$20.00.

New—Just Ready!

2 Major and Delp — Physical Diagnosis

New (6th) Edition!—Details procedures for examining every area of the body

Tells how to extract maximum information from physical examination by using the four methods of diagnosis—inspection, palpation, percussion and auscultation. Step-by-step procedures for examination of each body area are carefully delineated in this practical book—what to look for, listen for, and how to use your sense of touch to the greatest advantage.

Completely rewritten for this edition, the text includes such new topics as: *taking a neuropsy-*

chiatric history—Physical diagnosis of the child, including normal variations in heart sounds—Examination of the pharynx, the larynx and cheeks—Diagnosis of peripheral vascular disease. Extensive revisions are reflected in sections on: diseases of the eye; auscultation of the heart; coronary insufficiency; acute myocardial infarction.

By RALPH H. MAJOR, M.D., Professor of Medicine and of the History of Medicine; and MAHLON H. DELP, M.D., Professor of Medicine, The University of Kansas. 355 pages, 6½"x10", with 527 illustrations. About \$7.00.

New (6th) Edition—Just Ready!

3 Adler — Textbook of Ophthalmology

New (7th) Edition!—Helps the family physician manage common eye problems

One of the most useful books on eye care the family physician can own. This text concentrates on the ophthalmic problems of the non-specialist. Coverage ranges through anatomy and physiology of the eye, methods of examination, malformations and diseases, treatment, indications that call for a specialist.

For this edition a new chapter on *Symptomatology* links each visual and nonvisual symptom to the disorders with which it may be associated. You'll find new discussions covering: *Influence of*

hormones on Graves' disease—Use of tetracyclines in treating viral diseases affecting the eye—Treatment of hyphema to prevent glaucoma and blood staining of the cornea—Inborn errors of metabolism—Ocular manifestations of diseases of adrenal glands—Radiation burns of the retina and choroid—Blast injuries— etc.

By FRANCIS HEED ADLER, M.D., Emeritus Professor of Ophthalmology, University of Pennsylvania Medical School; Consulting Surgeon, Wills Eye, Philadelphia General, and Children's Hospitals of Philadelphia. About 565 pages, 6"x9¼", with 288 illustrations, 26 in color. About \$9.50.

New (7th) Edition—Just Ready!

Order Today from **W. B. SAUNDERS COMPANY**
West Washington Square Philadelphia 5

Please send me the following books and bill me:

- ☐ Reid's Textbook of Obstetrics, about \$20.00
- ☐ Major and Delp's Physical Diagnosis, about \$7.00
- ☐ Adler's Textbook of Ophthalmology, about \$9.50

Name.....

Address..... SMJ-4-62

"All the world's a stage..
And one man in his time
 plays many parts,
His acts being seven ages..."*

**As You Like It, Act II, Sc. 7*



through all seven ages of man

VISTARIL®

effective anxiety control
with a wide margin of safety

in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King¹ found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,² who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION

HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION

HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being®



PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

New York 17, New York



IN BRIEF

VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL Parenteral Solution (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL Capsules (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL Oral Suspension (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®



PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York

"Dear Doctor

In your busy night-and-day preoccupation with other people's lives, it is very difficult for you to find time to think about your own future.

Yet face it you must for the sake of your family.

We urge you to join with our many other friends and customers of the medical profession, and arrange for a visit—with your lawyer—to our Trust Department.

Discuss your estate plans in detail. Let an experienced Trust Officer show you how the group-judgment of specialists in the Trust field will insure your estate being handled soundly, economically—and to the letter of your Will.



TRUST DEPARTMENT
Security Building, Phoenix
Resources \$750 Million



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:

Vitamin B ₁ (Thiamine Mononitrate)	10 mg.
Vitamin B ₂ (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B ₆ (Pyridoxine HCl)	2 mg.
Vitamin B ₁₂ Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

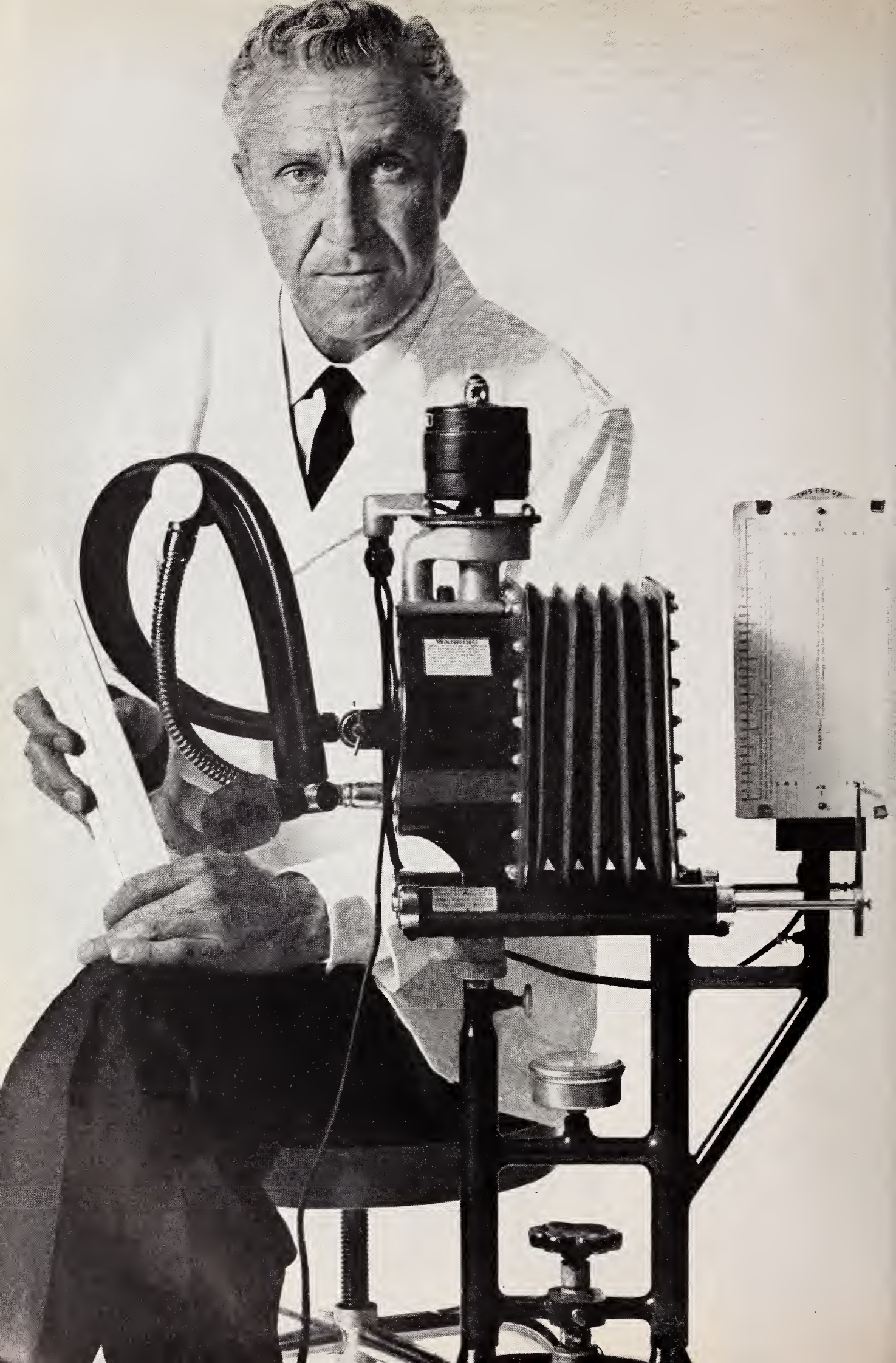
Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.



STRESSCAPS®

Stress Formula Vitamins Lederle



Can we measure the patient's comfort?

The physician can measure the basal metabolic rate by means of oxygen consumption. But he has no instrument—no objective test—for measuring comfort.

For this, he must depend upon his own powers of observation and the patient's own description of how he feels.

Because these are, admittedly, subjective criteria, the validity of results hinges entirely on the experience and objectivity of the investigators involved.

Such well-qualified clinicians have reported that a new corticosteroid developed in the research laboratories of Upjohn actually raises the level of relief obtainable with this type of therapy.

This difference cannot be "proved." It must be seen. And the only practical way for you to do this is to evaluate this new drug critically in your own practice. Please do, at your first opportunity. We are confident that you will be glad you did.

The new corticosteroid from Upjohn research

Alphadrol[®]

Each tablet contains Alphadrol (fluprednisolone) 0.75 mg. or 1.5 mg.
Supplied in bottles of 25 and 100.

The anti-inflammatory activity of Alphadrol is comparable to the best effects obtained in current practice. Results obtained with Alphadrol have been such as to warrant classifying it among the most efficient steroids now available.

More than twice as potent as prednisolone, Alphadrol exhibits no new or bizarre side effects. Salt retention, edema or hypertension, potassium loss, anorexia, muscle weakness or muscle wasting, excessive appetite, abdominal cramping, or increased abdominal girth have not been a problem.

Indications and effects

The benefits of Alphadrol (anti-inflammatory, antiallergic, antirheumatic, antileukemic, antihemolytic) are indicated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications

Patients on Alphadrol will usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal in-

tolerance, weight gain or weight loss, edema, hypertension, acne or emotional imbalance.

As in all corticotherapy, however, there are certain precautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Alphadrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

Relieves Anxiety and Anxious Depression



The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

Clinically proven
in over 750
published studies

- 1 Acts dependably — without causing ataxia or altering sexual function
- 2 Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
- 3 Does not muddle the mind or affect normal behavior



Board of Directors

MINUTES — FEBRUARY 4, 1962

Meeting of the Board of Directors of The Arizona Medical Association, Inc., held Sunday, February 4, 1962:

EXECUTIVE COMMITTEE REPORT

Dr. William B. Steen, Vice President and Chairman of the Board of Directors, reports actions of the Executive Committee in meeting held February 3, 1962:

Articles of Incorporation and By-Laws

Resolutions 1, 2 and 4 recommended by House of Delegates, April 26, 1961, for study and report.

Articles of Incorporation and By-Laws Committee directed to submit its final report in the matter of Number (Chapter VIII, Section 2, By-Laws), Distribution (Chapter V, Section 7, By-Laws) and Nominations (Chapter V, Section 5, By-Laws) of delegates.

It was moved and carried that the Articles of Incorporation and By-Laws Committee submit its report as directed by the House of Delegates, three months in advance of its forthcoming meeting.

APPROVED.

Financial Report

To 12-31-61 — Receipts \$46,767.77 (budgeted \$60,095.00); Expenditures \$103,499.13 (budgeted \$112,107.00).

It was moved and carried that we approve the request of the Treasurer that a resolution be submitted to the House of Delegates to increase the dues to \$100.00 per year effective January 1, 1963.

APPROVED DUES INCREASE TO \$100.00.

Membership Changes

W. Claud Davis, M.D. and Luis N. Carrada, M.D., active dues exempt, effective January 1, 1962, account attainment 70 years; Robert J. Oliver, M.D., active to associate, effective January 1, 1962, account residency, recommended.

APPROVED.

Central Office

It was moved and carried, in the interest of conservation of time and labor, that the Secretary and Executive Secretary decide jointly those items, correspondence, etc. that should be circularized to the Board of Directors and its Executive Committee, its committees or otherwise; and that the minutes, in the future, be prepared, reduced as nearly as possible to a brief description of the subject and motions.

APPROVED.

Medico-Legal Panel

We have requested Medical-Legal review of case to be handled similarly to the "Pima Plan."

It was moved and carried that it be resolved the Medico-Legal Committee be instructed to put into action, with the cooperation of the Arizona Bar, a committee patterned after that in operation in Pima County with the active participation of Ian M. Chesser, M.D.; and that the Maricopa County Medical Society be encouraged to form a similar committee.

RECOMMENDATION TO HOUSE OF DELEGATES ASKING IT TO ESTABLISH A PANEL (SIMILAR TO THE PIMA PLAN) UNDER THE MEDICO-LEGAL COMMITTEE.

Basic Sciences

Chapter IV, A.R.S., amendment proposed providing for reciprocity and partial reciprocity with basic science states associate with Basic Science Certification excluding the National Board of Medical Examiners.

It was moved and carried that the recommendation be accepted and referred to Board of Directors.

ACCEPTED RECOMMENDATIONS.

Professional Corporation

Recommended support of any satisfactory Professional Corporation Legislation coming be-

Arizona Medical Association Reports

fore this session of the Legislature and if enactment proves unsuccessful, authorize preparation of a bill for presentation in next (26th) Legislature.

Referred to Board without action.

IT WAS MOVED AND CARRIED THAT WE ADOPT PARTIALLY THE RECOMMENDATION OF THE LEGISLATIVE COMMITTEE; THAT WE SUPPORT ANY SATISFACTORY PROFESSIONAL CORPORATION LEGISLATION COMING BEFORE THIS SESSION OF THE LEGISLATURE, BUT THAT WE DO NOT TAKE ACTION ON THIS FURTHER PART OF RECOMMENDATION (TO THE EFFECT THAT) IF ENACTMENT OF LEGISLATION IS UNSUCCESSFUL THAT WE PREPARE LEGISLATION FOR THE NEXT LEGISLATURE.

Kerr-Mills

Recommended that a special ad hoc committee be appointed, composed of doctors of medicine, to work with legislators in exploring the possibility of implementation of the Welfare Code. Referred to Board, recommending committee appointment among members of Legislative Committee.

IT WAS MOVED AND CARRIED THAT WE ACCEPT THE RECOMMENDATION OF THE LEGISLATIVE COMMITTEE, AS AMENDED BY THE EXECUTIVE COMMITTEE, AND THAT THE CHAIRMAN OF THE LEGISLATIVE COMMITTEE BE REQUESTED TO APPOINT THIS COMMITTEE FROM AMONG ITS OWN MEMBERS.

H. R. 4222

Program recommended to combat possible enactment of this measure, more commonly known as the King-Anderson Bill, providing medical services for the aged with a controlled socialistic approach presented including establishment of a Speaker's Bureau and a Resolutions Campaign (WHAM).

It was moved and carried that Dr. Roland F. Schoen, Chairman, Public Relations Committee and MacDonald Wood, M.D., Chairman, Legislative Committee, be invited to be present at the Board of Directors meeting tomorrow; and that the program be outlined to the Board for activation.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATIONS OF THE EXECUTIVE COMMITTEE TO THE EFFECT

THAT THIS PROGRAM, AS OUTLINED, BE ENDORSED; AND THAT OUR MEMBERSHIP BE POLLED FOR A \$10.00 CONTRIBUTION TO SUPPORT THIS EFFORT: THAT ANY RESIDUE GO TO THE GENERAL FUND; AND THAT THE BUDGET (FOR THIS PROGRAM) DOES NOT EXCEED THAT WHICH IS PROCURED FOR THIS PURPOSE EXCEPTING ON POLL OF THE EXECUTIVE COMMITTEE AND BOARD.

IT WAS MOVED AND SECONDED THAT THE BOARD OF DIRECTORS ASSESS THEMSELVES \$10.00 FOR THIS PROGRAM.

Ionizing Radiation

It was moved and carried that it be recommended to the Board of Directors that it withhold action until conclusion of the meeting to be held by the Governor, the Arizona State Board of Health and the Atomic Energy Commission, and conclusions reached regarding the establishment of an organization to deal with the problem of ionizing radiation control.

RECOMMENDATION CONCURRED IN.

Prescription Taxes (H. B. 43 and H. B. 115)

It was moved and carried that the subject of repeal or elimination of all taxes on prescriptions be not taken up at this time.

IT WAS MOVED AND CARRIED THAT ACTION IN THIS REGARD BE NOT TAKEN UP AT THIS TIME.

Nurses — Licensure

Recommended that action be postponed until such time as the final draft of the bill of amendments (Chapter 15 A.R.S., 1956, providing regulation of the practice of nursing in Arizona, including both Registered and Practical Nurses) is presented for review; and that raising the qualifications for Practical Nurses might well weaken the existing statute; accordingly, it is viewed with disfavor.

IT WAS MOVED AND CARRIED THAT NO ACTION BE TAKEN WITHOUT OPPORTUNITY TO REVIEW THE ACTUAL BILL.

Authorizing study of air pollution problems; indication of introduction of a better bill anticipated.

It was moved and carried that while there is sympathy in the need of study and control of air pollution, no action be taken on this measure awaiting introduction of a better bill.

IT WAS MOVED AND CARRIED THAT ANY MEASURE DEALING WITH WATER AND AIR POLLUTION BE REFERRED TO THE WATER AND AIR POLLUTION COMMITTEE FOR REVIEW AND REPORT TO THE BOARD OF DIRECTORS; AND THAT ACTION BE DEFERRED AWAITING SUCH REPORT.

Narcotics

Recommendation that resolution be introduced into the House of Delegates expressing the opinion that maintenance of stable dosage levels in individuals addicted to narcotics is generally inadequate and medically unsound and that ambulatory clinic plans for the withdrawal of narcotics from addicts are likewise generally inadequate and medically unsound; and that the Arizona delegates to the AMA be instructed (a) to oppose the development of such ambulatory treatment plans and (b) to support (1) after complete withdrawal, follow-up treatment, including that available at rehabilitation centers, (2) measures designed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment, (3) the advancement of methods and measures toward rehabilitation of the addict under continuing civil commitment, and (4) the establishment of methods for the dissemination of factual information on narcotic addiction to the members of the medical profession. Further, that the Legislature be requested to amend Senate Bill No. 1, Section 36-1062, dealing with individuals convicted of using narcotics for the first time, expressing the view that since narcotics may be a symptom of an underlying medical or psychiatric disorder amenable to treatment, that first offenders should have the advantage of (1) civil commitment and (2) medical and psychiatric evaluation; such medical and psychiatric evaluation to be carried out during the first 90 days of civil commitment in a state institution under maximum security. Following this evaluation, a detailed report should be submitted to the court outlining the findings of this medical-psychiatric team, including recommendations. At the discretion of the court, the offender may be returned to the county jail as otherwise provided in this law, or if treatable, be referred to adequate facilities for further treatment. If the individual or his estate is financially able, in part or totally, to assume this

responsibility, then this should be made mandatory by court order. Otherwise, the cost of such treatment shall be a state cost. It is not the intent to remove the offender from the jurisdiction of the court during the treatment and probation periods and these amendments should not be so interpreted.

It was moved and carried that these recommendations be concurred in.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATIONS OF THE AD HOC STUDY COMMITTEE BE SUPPORTED.

S. B. 50 — Osteopathy

Administrative changes amending the Osteopathic Practices Act. No objections indicated.

IT WAS MOVED AND CARRIED THAT NO ACTION BE TAKEN.

Blood Services

Chapter 9, A.R.S., Section 36-1150, proposed amended, defining blood services, the rendition of a service. Board approval recommended.

IT WAS MOVED AND CARRIED THAT SUCH AMENDMENT BE APPROVED.

Psychologists

Proposed bill providing certification of psychologists recommended referred to the Subcommittee on Mental Health of the Professional Committee for review and recommendation.

AWAITING REPORT OF PROFESSIONAL COMMITTEE IN LINE WITH RECOMMENDATION OF LEGISLATIVE COMMITTEE.

Married Minor's Consent

Amendment adding Paragraph C to Section 25-212, A.R.S., providing that any minor who has contracted a lawful marriage may give consent to the furnishing of hospital, medical and surgical care and shall not be subject to disaffirmance because of minority.

IT WAS MOVED AND CARRIED RECOMMENDING FAVORABLE HANDLING OF THIS PROPOSED MEASURE.

State Health Department Program

Bills to be presented include: (1) dealing with control of rabies; (2) appropriation of funds for equipment of the new tuberculosis hospital; (3) providing for increase in limitation of salary of the Commissioner of Health from \$16,500.00 to \$22,000.00; (4) deficiency appro-

Arizona Medical Association Reports

priation making it possible for the Health Department to discharge its responsibilities associate with control of narcotics and regulations for Nalinc testing making it possible to employ a qualified administrator; (5) providing for establishment of rules and regulations pertaining to operation of nursing homes; (6) a measure dealing with atomic energy control, conference thereon scheduled to be held January 23, 1962, to iron out discrepancies; and (7) presentation of budget for operation of the State Health Department containing substantial increases and especially, provision for hiring three top level qualified administrators, one in the field of tuberculosis.

NO ACTION.

S. B. 2 — Aging

Creating a Commissioner and Advisory Committee for the Aging.

NO ACTION.

Injured

Recommend endorsement of conclusions and recommendations of the City-County Citizen's Committee regarding the care, handling and transportation of injured and particularly relating to ambulance service in this State and that the subject be presented to the Subcommittee on Civil Defense and Safety of the Professional Committee for action.

RECOMMENDATION OF THE LEGISLATIVE COMMITTEE ACCEPTED.

S. 1552 — Antitrust and Monopoly

To amend the Antitrust, Patent, and Food and Drug Laws with respect to the manufacture and distribution of drugs.

It was moved and carried that we go on record opposing this measure and encourage our component societies to adopt resolutions to this effect.

CONCURRED IN.

H. B. 8 — Cancer

Providing for establishment of a cancer advisory committee. Informative — no action recommended.

NO ACTION.

H. B. 21 — Contagious Diseases

Prescribing methods of reporting contagious diseases and in the case of venereal disease, pre-

scribing that the person so afflicted may be referred to by an identifying number or symbol. Recommended endorsed.

IT WAS MOVED AND CARRIED EXPRESSING FAVOR IN THIS MEASURE.

H. B. 22 — Licensure

Providing that physicians permanently employed by the State Department of Health, the State Hospital and State, County or Municipal Health Departments be required to procure a license to practice medicine and surgery. Approved.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATION OF THE LEGISLATIVE COMMITTEE BE ACCEPTED WITHOUT ACTIVE SUPPORT.

H. B. 24 — Prescriptions

Permitting the filling of prescriptions or the dispensing of medications under a different brand name or under its non-proprietary name with the permission of the prescribing physician when the cost therefor is charged to the State or any of its political subdivisions. Recommended disapproved.

RECOMMENDATION CONCURRED IN.

S. B. 54 Tuberculosis

Removing from jurisdiction of the State Department of Health the State Tuberculosis Sanatorium and providing for the establishment of an Arizona State Tuberculosis Sanatorium Board. Disapproved on basis of lack of specification of designated sources of procurement of physician members to be appointed by this Board.

IT WAS MOVED AND CARRIED THAT THIS BILL BE NOT ENDORSED BECAUSE OF THE INADEQUACY OF SECTION 36-261A DEFINING PHYSICIANS TO BE APPOINTED.

H. B. 84 — Industrial Safety

Providing Industrial Commission with authority to promulgate rules and regulations in a division of safety. Support recommended.

RECOMMENDATION CONCURRED IN.

H. B. 89 — Sheltered Care Homes

Regulating hospitals, nursing homes, maternity homes and sheltered care homes. Support recommended.

IT WAS MOVED AND CARRIED THAT THIS BILL BE SUPPORTED.

Arizona Medical Association Reports

S. J. M. 2 — Constitution

Joint Memorial requesting the Congress of the United States to propose an amendment to repeal the Sixteenth Article of Amendments to the Constitution of the United States and prohibiting the Government of the United States from engaging in any business, professional, commercial, financial or industrial enterprise except as specified in the Constitution of the United States. Support recommended.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATION BE APPROVED.

H. B. 90 — Medical Care

Providing for the hospitalization and medical care of medically indigent persons by the Board of Supervisors. Recommended approved.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATION BE CONCURRED IN.

H. B. 108 — Juveniles

Authorizing the State Planning and Building Commission to select and secure a site for an Intermediate Training School for Juveniles, at or near both Tucson and Phoenix, providing for the immediate construction of such a facility near Tucson. Approval recommended.

IT WAS MOVED AND CARRIED THAT THIS RECOMMENDATION BE APPROVED.

S. C. R. 7 — Marriage

Prescribing that the examination relating to marriage shall be made not more than thirty days prior to the issuance of the marriage license which, in effect, deletes the forty-eight hours waiting period. No action recommended.

IT WAS MOVED AND CARRIED THAT NO ACTION BE TAKEN.

H. J. M. 1 — Welfare

Joint Memorial requesting the Congress of the United States to re-examine the law and regulations of the Social Security relating to Welfare for the purpose of permitting each state to operate its own welfare program without burdensome restrictions. Support recommended.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATION BE APPROVED.

H. J. R. 1 — Welfare

Joint Resolution authorizing the Legislative Council to undertake a research project involv-

ing an analysis of the Welfare Program, including a study of the Federal Legislation relating to Medical Care of the Aged and the medical programs in effect in other states (including the Kerr-Mills Act). Approval recommended.

IT WAS MOVED AND CARRIED THAT THIS RECOMMENDATION BE CONCURRED IN.

H. B. 79 — Mentally Deficient Persons

Providing for admission of mentally deficient persons in the Arizona Children's Colony, relieving counties from payment of maintenance costs for mentally deficient persons admitted to the Colony; the State to assume such costs. No action taken.

IT WAS MOVED AND CARRIED THAT NO ACTION BE TAKEN.

H. B. 9 — Medical College

Appropriating the sum of one million dollars to a medical college building fund for construction. While sympathetic with the motive, the sum of money proposed to be appropriated is unrealistic; accordingly, no action taken.

IT WAS MOVED AND CARRIED THAT THIS BILL BE DISAPPROVED (FOR THE SAME REASON).

H. B. 81 — Sex Offenders

Providing for registration with Sheriff and penalty for indecent exposure. Approval recommended.

IT WAS MOVED AND CARRIED THAT RECOMMENDATION BE CONCURRED IN.

H. B. 69 — Hazardous Substances

Regulating sale, distribution and labeling of hazardous substances for household use. Recommended approved.

IT WAS MOVED AND CARRIED THAT RECOMMENDATION BE CONCURRED IN.

H. B. 3 — Occupational Diseases

Providing compensation under certain conditions for "blisters and abrasions" which develop associate with occupational diseases and disability. Recommended disapproved.

IT WAS MOVED AND CARRIED THAT THE BOARD CONCUR IN THE REJECTION OF THIS MEASURE.

S. B. 8 — Air Raid Shelters

Providing authorization for construction, re-

Arizona Medical Association Reports

construction, maintenance and repair of air raid shelters.

It was moved and carried that action on this measure be deferred pending further report from the Professional Committee through its Subcommittee on Civil Defense and Safety.

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATION BE CONCURRED IN.

H. B. 91 — Welfare

Providing amendments to numerous sections of the Welfare Code. Discussion set forth under H. J. R. 1.

Medicine and Surgery Act

Membership of Doctors Lindsay E. Beaton (as Chairman), Jesse D. Hamer and William B. Helme, comprising ad hoc Committee on Revision of Medicine and Surgery Act, accept appointments.

Mentally Ill

Dermont W. Melick, M.D. urges support of the Association in the efforts of the Arizona State Hospital in the treatment of the mentally ill. Budget increase to achieve objective anticipated, including provision for adequate personnel and salaries.

It was moved and carried that it be recommended to the Board of Directors that the House of Delegates be presented with a resolution to the effect (during the forthcoming Annual Meeting).

IT WAS MOVED AND CARRIED THAT THE RECOMMENDATION BE CONCURRED IN.

H. R. 4222 — Speakers Bureau — Resolutions Campaign

Doctors Roland F. Schoen, Charles H. Finney and MacDonald Wood entered the meeting at this point.

President reports on meeting recently attended in Chicago dealing with H. R. 4222 and program designed to establish Speakers Bureau and undertaking a Resolutions Campaign on the State level.

Dr. Schoen reports results of deliberations and suggested approach to achieve the objectives. Utilization of the services of the Assistant Executive Secretary was discussed, or as an alternative, that a qualified public relations man be

employed part-time, with secretarial assistance.

It was moved and carried that this program be instituted and carried out at the direction of the Committee with due consideration with the Central Office as is determined by necessity.

Executive Committee Report — Continued *House Resolutions*

Medical Economics Committee report on Resolutions 1, 2, 3, 4, 5 and 6, adopted by the House of Delegates, April 28, 1961, reaffirming objectives and commending the Board of Directors for its distribution efforts.

Report on Resolution 8 recommending program first be investigated as to its actuarial soundness.

Amendment Resolution No. 6 — action considered not appropriate at this time. Recommended concurrence.

REPORT ACCEPTED.

Professional Corporation

Received report of Medical Economics Committee recommending that every avenue be investigated to the end that Professional Corporation Legislation be introduced and enacted by the Arizona State Legislature during the Second Regular Session.

TABLED.

Benefit Assignment

Medical Economics Committee reports no objection to Medical and/or Surgical Benefit Assignment Form to be included as a separate portion of the current approved Standardized Statement for Health and Accident Claims. Accepted.

APPROVED IF ATTACHMENT BE MADE A SEPARATE PART OF THE FORM.

Minnesota Plan

Medical Economics Committee reports desirability of the "Minnesota Plan" (Physicians and Surgeons Underwriters Corporation) to meet with Board of Directors to present its program; further, that they be permitted to exhibit during the 1962 Annual Meeting. Referred to Board without comment.

DETERMINED IF SUCH PROGRAM IS PROMOTED IN ARIZONA, SALES SHOULD BE ON AN INDIVIDUAL BASIS WITHOUT ASSOCIATION APPROVAL; THAT THERE APPEARS TO BE NO NEED FOR MEETING

Arizona Medical Association Reports

WITH CORPORATION REPRESENTATIVES AT THIS TIME AND THAT THERE APPEARS NO ADVANTAGE TO THEIR EXHIBITING AT THE ANNUAL MEETING.

UMWA

Medical Economics Committee recommends that William A. Dorsey, M.D., Area Medical Officer, United Mine Workers of America-Welfare and Retirement Fund, be requested to submit complete information relative to its program, together with a list of Arizona physicians recognized as participants and, particularly, information as to care and how it is derived in emergencies, adhering to the principle of free choice of physician by the patient. Report approved.

RECOMMENDATION CONCURRED IN.

Medicare Contract

Approved execution of Supplemental Agreement to the Medicare Contract involving administration detail including Statement of Services, provided by Civilian Medical Sources-Revision and Appendix A-Revision, between the Association, Fiscal Administrator and ODMC.

ACTION APPROVED.

Medicare Contract

Arizona Blue Shield Medical Service (Fiscal Administrator) suggests a ceiling of \$2.75 per claim based on present volume; however, reserving the right to review the unit cost per claim in the event volume is reduced to any great extent. Recommended.

RECOMMENDATION CONCURRED IN.

Narcotics

Ad hoc Committee on Narcotics Study report reviewed in the morning session and action taken as set forth heretofore.

Representative Douglas Holsclaw (Pima) informed of this report.

RECEIVED.

Civil Defense

Earl J. Baker, M.D., accepts appointment to Professional Committee with assignment as Chairman of the Subcommittee on Civil Defense and Safety.

Earl J. Baker, M.D. (Phoenix) and Robert J. Johnson, M.D. (Tucson) accept appointment as member representatives of this Association to comprise a portion of a steering committee to be organized including this Association, the Ari-

zona State Health Department, the Arizona State Department of Public Instruction, the Arizona State Department of Civil Defense and the American Red Cross, for the purpose of organizing a Medical Self-Help Training Program.

RECEIVED.

Civil Defense Expenditures

Report of expenditures, possibly exceeding \$850.00, in carrying out the directive of the Board of Directors, December 10, 1961.

IT APPEARS BOARD IS COMMITTED TO HONOR EXPENDITURES APPROXIMATING \$850.00. NO ADDITIONAL EXPENDITURES AUTHORIZED.

North Mountain Hospital

Report referred to Professional Committee for perusal and comment.

APPROVED.

Prepaid Insurance

The Board of Directors, in meeting held December 10, 1961, adopted report of the Professional Committee wherein it recommended "that a special committee be formed to investigate the possibility of prepaid insurance to be provided by a combination of the city, county and state governments of Arizona to take care of the indigent and medically indigent". Suggested matter be referred to the Medical Economics Committee.

Senior Citizens

AMA reports upon its program dealing with the medical problems of the aged designed to submit information to senior citizen groups throughout the country, making available information, pamphlets, etc., helpful and of interest to their respective memberships.

REPORT RECEIVED.

Aged — Hospital Services

On recommendation of the Professional Committee and directive of the Board of Directors all component county medical societies were communicated with suggesting that their representative committees on aging work actively with the county supervisors in helping to improve out-patient and hospital services in the instance of the aged group.

REPORT RECEIVED.

Arizona Medical Association Reports

Joint Insurance Committee

Doctors John L. Cogland and Donald A. Polson of Phoenix and Doctor John R. Schwartzmann of Tucson, accept appointment to serve as representatives of this Association on a Joint Committee with the Arizona Hospital Association and Health Insurance Council for the purpose of working out an admissions plan concerning insurance forms and to coordinate activities for the betterment of all three organizations.

REPORT RECEIVED.

AMEF

AMA advises consolidation of programs of AMEF and American Medical Research Foundation within the framework of a single Foundation to be called American Medical Association Education and Research Foundation, effective January 1, 1962.

REPORT RECEIVED.

Blue Plans

Norman A. Ross, M.D., responds to previous report of Professional Liaison Committee regarding Bulletin release designed for participating physicians.

RECEIVED.

Convention Program

Eli Lilly and Company reports adoption of plan to be known as Lilly State Program Convention Grants to provide funds for honoraria and expenses of qualified speakers to be selected by the program committees of the respective associations. Arizona grant would be \$250.00. Acceptance of Lilly Grant for 1963 meeting recommended.

IT WAS MOVED AND CARRIED THAT THIS MATTER BE PLACED ON THE AGENDA OF THE NEXT BOARD OF DIRECTORS MEETING FOR CONSIDERATION.

Women's Auxiliary

Convention meeting accommodations outlined.

RECEIVED.

AMA reports plan proposed by Blue Shield for national coverage of physician service for those over sixty-five under certain income limits conforming with AMA policy.

RECEIVED.

Kerr-Mills Law

Resolution adopted by Bernalillo County

Medical Association of New Mexico opposing King-Anderson type legislation.

RECEIVED.

Socio-Economic Practices

Medical and Chirurgical Faculty of the State of Maryland voted: "that the Board of Medical Examiners be requested to consider inclusion of questions dealing with ethics and proper socio-economic practices in the State Board Examinations for licensure; and that this information be communicated to the Deans of all Medical Schools in the U. S. and to the Directors of Medical Education in this State."

Recommended that Board of Directors petition the House of Delegates for similar action.

NO ACTION.

Medical Practice

B. Trussell of Phoenix expresses his views regarding medical practice in the State of Arizona.

RECEIVED.

Arizona Republic and Phoenix Gazette expresses appreciation and commendation extended concerning a series of articles regarding the medical profession published in the Arizona Republic, November 19-20, 1961, by Miss Charlotte Buchen.

RECEIVED.

Contribution

National Society for Medical Research seeks contribution in support of its activities associate with antivivisectionists. Received.

Project Hope

Maricopa County Medical Society suggests the Arizona Medical Association designate a sponsor of the fund raising drive proposed for Hospital Ship Hope.

RECEIVED.

Self-Aid Workshops

Henry Lesem, Treasurer, Self-Aid Workshops of Arizona, Inc., seeks support of this Association in their program. Additional data sought but not received to date. Recommended referred to Professional Liaison Committee.

RECOMMENDATION CONCURRED IN.
AMPAC

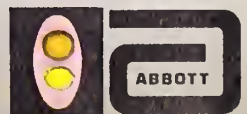
President reports status of AMPAC. No action.
MEETING ADJOURNED.

Paul L. Singer, M.D.
Secretary



If you had to make your own children's multivitamins

chances are you'd try to make them very much like our new Vi-Daylin® Chewable with Entrapped Flavor. Entrapped Flavor means a better tasting chewable children's multivitamin; one with no vitamin aftertaste. Here's why: 1. We coat all the vitamins in a digestible film that does not dissolve until it reaches the gastrointestinal tract. This means that unpleasant strong vitamin tastes are not released in the mouth, but in the g-i tract where they are most quickly absorbed. 2. We make certain that every Vi-Daylin Chewable tablet tastes citrus sweet and good to every patient, everytime; we coat the flavoring oils in each tablet in a water soluble film. This film dissolves immediately in the mouth, releasing the full bouquet of our citrus-candy flavoring agents. Now you know why little patients always taste the flavor, never the vitamins, when you prescribe new Vi-Daylin Chewable. And the formula's all you'd expect, with reasonable amounts of A & D. Taste test them yourself and you'll prescribe **VI-DAYLIN CHEWABLE** regularly and soon.



Profile of a multivitamin



New Vi-Daylin **Chewable** —with entrapped flavor

New Formula

In recognition of recent medical thinking, we've reduced the vitamin D in our formula from 20 mcg. (800 units) to 10 mcg. (400 units). At the same time, we've increased the vitamin C content from 40 mg. to 50 mg. per tablet and per 5-cc. lemon-candy teaspoonful.

All Other Elements Remain at Their Previous Level.

Vitamin A
(3000 units) 0.9 mg.
Thiamine
Mononitrate 1.5 mg.
Riboflavin 1.2 mg.

Cobalamin (B₁₂) . . . 3 mcg.
Nicotinamide 10 mg.
Pyridoxine
Hydrochloride 1 mg.

New Low Price

In quantities of 100 tablets our new Chewable costs less than 4¢ a tablet and the normal dosage is one tablet daily. No financial hardship for your patients when you prescribe or recommend Vi-Daylin.

New Shape, New Color, New Bottle

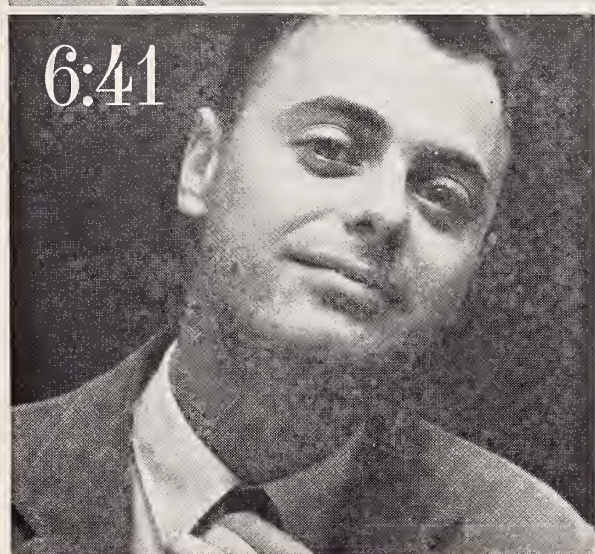
New Vi-Daylin Chewable tablets are football shaped. This shape got a high degree of acceptance in our taste-tests and

seems to have an intrinsic interest for children. The orange color ties in with the mild, sweet citrus flavor. And the wide-mouthed new bottle looks handsome on the table.

Taste-Test New Vi-Daylin Chewable Yourself

Won't you taste-test new Vi-Daylin Chewable multivitamins yourself? We're certain you'll be pleasantly surprised at their sweet good taste. They're the candy-flavored multivitamins with *entrapped flavor* . . . little folks taste the candy flavor, never the vitamins.





In acne—24-hour-a-day skin care with antibacterial pHisoHex®

(contains 3% hexachlorophene)

In acne, pHisoHex, antiseptic detergent, provides *continuous* antibacterial action against the infection factor. With exclusive, frequent use, pHisoHex builds up an effective antibacterial film on the skin that resists rinsing—lasts from wash to wash. pHisoHex augments any other therapy of acne.

When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ."¹ "No patient failed to improve."¹

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the

potentially harmful qualities of soap. It is non-alkaline, nonirritating and hypoallergenic.²

For acne, prescribe pHisoHex—and get improved results.

pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

Winthrop

LABORATORIES
New York 18, N. Y.

(1665M)

LOMOTIL[®]

(brand of diphenoxylate hydrochloride with atropine sulfate)

ANTIDIARRHEAL TABLETS and LIQUID

lowers motility / relieves cramping / controls diarrhea

Roentgenographic studies by Demeulenaere¹ established that a single dose of 10 mg. of Lomotil slowed gastrointestinal transit within two hours and that it maintained its decelerating activity for more than six hours.

In diarrhea this lowered propulsion permits a physiologic absorption of excess fluid, lessens frequency and fluidity of stools and gives safe, selective, symptomatic control of most diarrheas. Concurrently, it conserves electrolytes and controls cramping.

Investigators have found the antidiarrheal action of Lomotil not only "excellent"² but "efficacious"³ where other drugs have failed. . . .

DOSAGE: For *adults* the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily, reduced to meet the requirements of each patient as soon as the diarrhea is under control. Maintenance dosage may be as low as two tablets daily. For *children* daily dosages, in divided doses, range from 3 mg. (½ teaspoonful three times daily) for infants 3 to 6 months to 10 mg. (1 teaspoonful



five times daily) for children 8 to 12 years. Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. The recommended dosage schedules should not be exceeded.

NOTE: Lomotil is an exempt narcotic preparation.

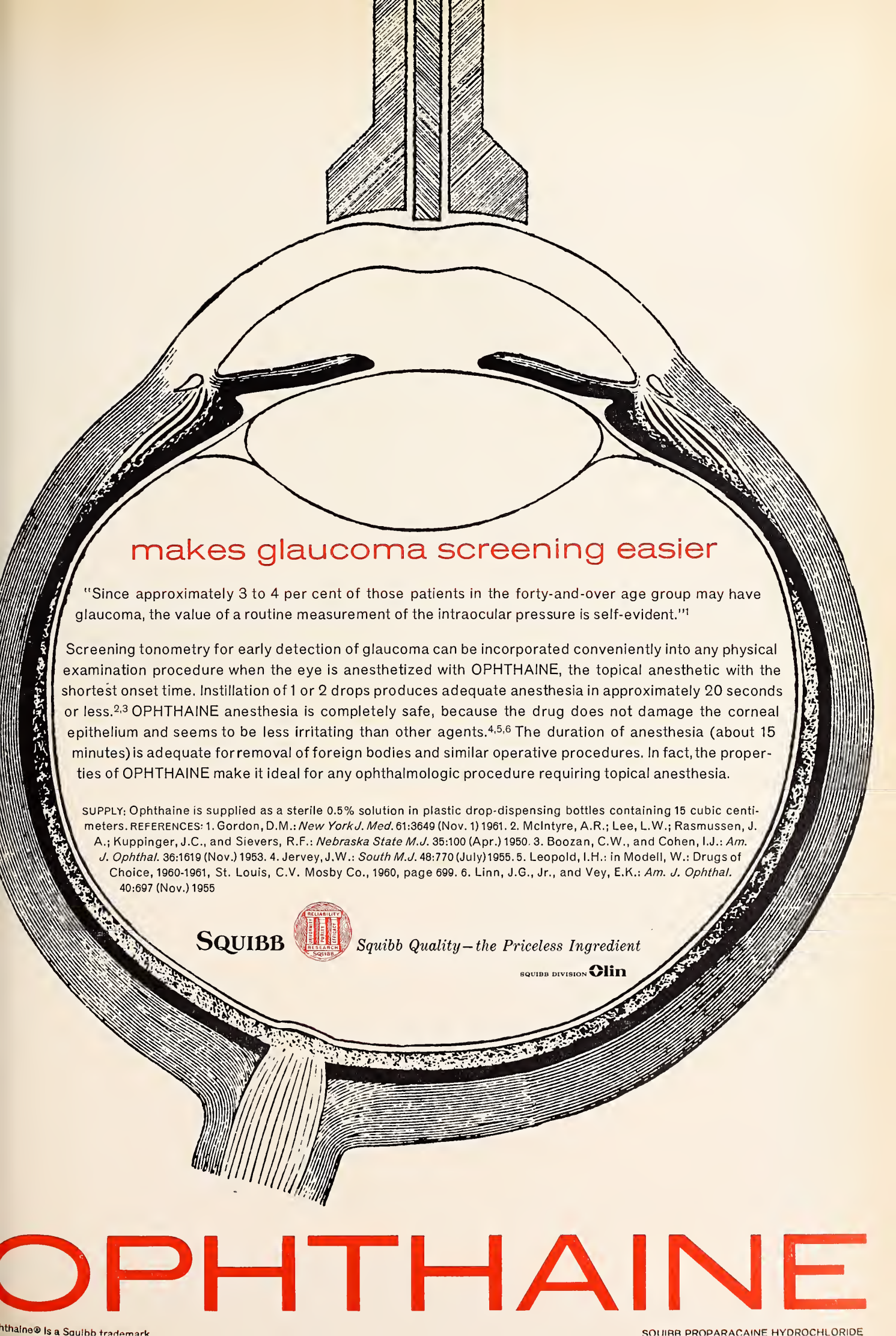
Descriptive literature and directions for use detailed in Physicians' Product Brochure No. 81 available from G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

1. Demeulenaere, L.: Action du R 1132 sur le transit gastro-intestinal, *Acta Gastroent. Belg.* 21:674-680 (Sept.-Oct.) 1958.

2. Kosich, A. M.: Treatment of Diarrhea in Irritable Colon, Including Preliminary Observations with a New Antidiarrheal Agent, Diphenoxylate Hydrochloride (Lomotil), *Amer. J. Gastroent.* 35:46-49 (Jan.) 1961.

3. Weingarten, B.; Weiss, J., and Simon, M.: A Clinical Evaluation of a New Antidiarrheal Agent, *Amer. J. Gastroent.* 35:628-633 (June) 1961.

G. D. SEARLE & CO.
Research in the Service of Medicine



makes glaucoma screening easier

"Since approximately 3 to 4 per cent of those patients in the forty-and-over age group may have glaucoma, the value of a routine measurement of the intraocular pressure is self-evident."¹

Screening tonometry for early detection of glaucoma can be incorporated conveniently into any physical examination procedure when the eye is anesthetized with OPTHAININE, the topical anesthetic with the shortest onset time. Instillation of 1 or 2 drops produces adequate anesthesia in approximately 20 seconds or less.^{2,3} OPTHAININE anesthesia is completely safe, because the drug does not damage the corneal epithelium and seems to be less irritating than other agents.^{4,5,6} The duration of anesthesia (about 15 minutes) is adequate for removal of foreign bodies and similar operative procedures. In fact, the properties of OPTHAININE make it ideal for any ophthalmologic procedure requiring topical anesthesia.

SUPPLY: Opthaine is supplied as a sterile 0.5% solution in plastic drop-dispensing bottles containing 15 cubic centimeters. REFERENCES: 1. Gordon, D.M.: *New York J. Med.* 61:3649 (Nov. 1) 1961. 2. McIntyre, A.R.; Lee, L.W.; Rasmussen, J. A.; Kuppinger, J.C., and Sievers, R.F.: *Nebraska State M.J.* 35:100 (Apr.) 1950. 3. Boozan, C.W., and Cohen, I.J.: *Am. J. Ophthal.* 36:1619 (Nov.) 1953. 4. Jervay, J.W.: *South M.J.* 48:770 (July) 1955. 5. Leopold, I.H.: in Modell, W.: *Drugs of Choice*, 1960-1961, St. Louis, C.V. Mosby Co., 1960, page 699. 6. Linn, J.G., Jr., and Vey, E.K.: *Am. J. Ophthal.* 40:697 (Nov.) 1955

SQUIBB



Squibb Quality—the Priceless Ingredient

SQUIBB DIVISION **Olin**

OPHTHAININE

Ophtaine® is a Squibb trademark

SQUIBB PROPARACAINE HYDROCHLORIDE

Camelback Hospital



5055 NORTH THIRTY FOURTH STREET • PHOENIX 18, ARIZONA • AMherst 4-4111

March 10, 1962

Dear Doctor -

On March 1st Camelback Hospital was eight years old - a hardy youngster, growing rapidly, and learning every day.

18 beds in 1954, 91 beds in 1962. 5 staff psychiatrists in 1954, 22 in 1962.

What made us grow? Only one thing: your splendid support and confidence.

In 1961 you referred to us 1260 patients for admission. In the first two months of 1962 you have sent us 266 patients - and we appreciate your confidence.

Our philosophy?

We believe that mental illness is curable.

We believe that only the best professional care, highest professional standards, a truly open-minded spirit of cooperation between all members of the medical family can achieve results.

We believe that the principle of free choice of physician and free choice of hospital, so successful in American medicine, applies equally well to American psychiatry.

We believe in an open staff of highly qualified men and women.

We believe in an open hospital.

We believe in private practice.

We believe in free enterprise and initiative.

We believe in the dignity of the individual.

We despise fences, force and fetters.

We dislike commitments.

We abhor federalization, statism, or socialization by any other name.

We believe in the traditional system that has made American medicine great.


We believe in the sanctity of the patient-doctor relationship.

We thank you for having made our success possible.

Fraternally yours,

Obby Beedheim
Medical Director M.D.

ACCREDITED
JOINT COMMISSION ON ACCREDITATION OF HOSPITALS - THE AMERICAN PSYCHIATRIC ASSOCIATION.



Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.


Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE:**
1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA[®]

(carisoprodol, Wallace)

 Wallace Laboratories, Cranbury, New Jersey




SUCCESSFUL FAMILY PLANNING...BASED ON YOUR COUNSEL AND **LANESTA® GEL**

The new baby is beautiful, but his arrival raises some problems in family planning on which the mother will need help — *your* help. What you counsel or suggest to her may determine the family's happiness for many years to come. When she comes in to see you for her routine postnatal check-up, you have an ideal opportunity to counsel her and answer her questions. It's also an ideal time to recommend the use of Lanesta Gel.

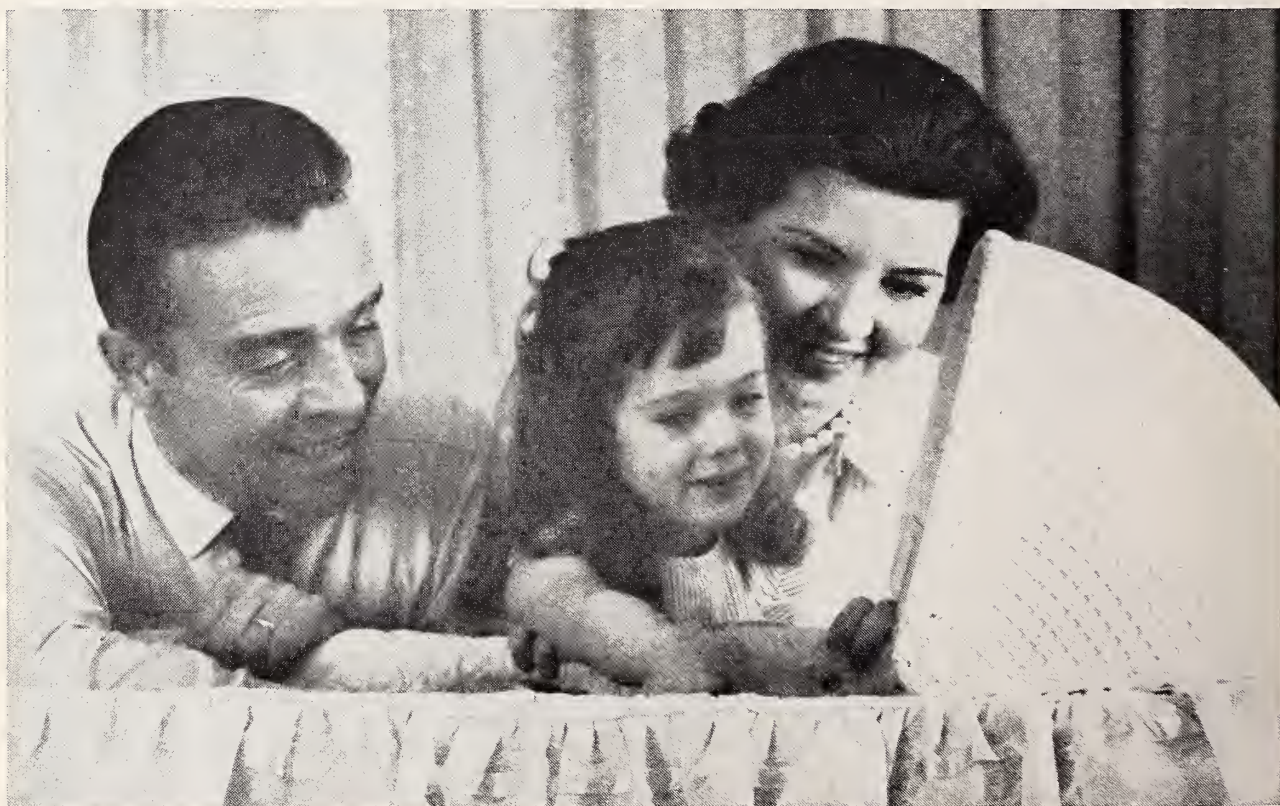
Lanesta Gel, with or without a diaphragm, is a most effective means of conception control. Lanesta Gel offers faster spermicidal action because it rapidly diffuses into the seminal clot. In fact, the mean diffusion spermicidal time of Lanesta Gel is three to seven times faster than the mean diffusion times of ten leading commercially available contraceptive creams, gels, or jellies, according to Gamble ("Spermicidal Times of Commercial Contraceptive Materials — 1959").*

Lanesta Gel has complete esthetic acceptance and is well tolerated.

*Gamble, C.J.: *Am. Pract. & Digest. Treat.* 11:852 (Oct.) 1960. See also Berberian, D.A., and Slighter, R.G.: *J.A.M.A.* 168:2257 (Dec. 27) 1958; Kaufman, S.A.: *Obst. and Gynec.* 15:401 (March) 1960; Warner, M.P.: *J.Am.M. Women's A.* 14:412 (May) 1959.

A PRODUCT OF LANTEEN® RESEARCH  **Distributed by**
Supplied by Esta Medical Laboratories, Inc., Alliance, Ohio

BREON LABORATORIES INC., New York 18, N. Y.



Schering

Naqua[®] to help them live with their hypertension

brand of trichlormethiazide

Good start on the
day's work (sleep
is restful,
morning
headache gone)



Golf today,
fishing tomorrow
(retired but not
easily tired)



Housework in
a.m., shopping in
p.m. (B.P. down,
dizzy spells
relieved)



Gardening is
enjoyable again
(edema gone,
spirits up)



often the only therapy
needed to control blood
pressure and relieve
symptoms in mild or
moderate cases*

NAQUA potentiates other
antihypertensives when used
adjunctively. . . . Side effects are
minimal. . . . Economically priced.

Packaging: NAQUA Tablets, 2 or 4 mg.,
scored, bottles of 100 and 1000.

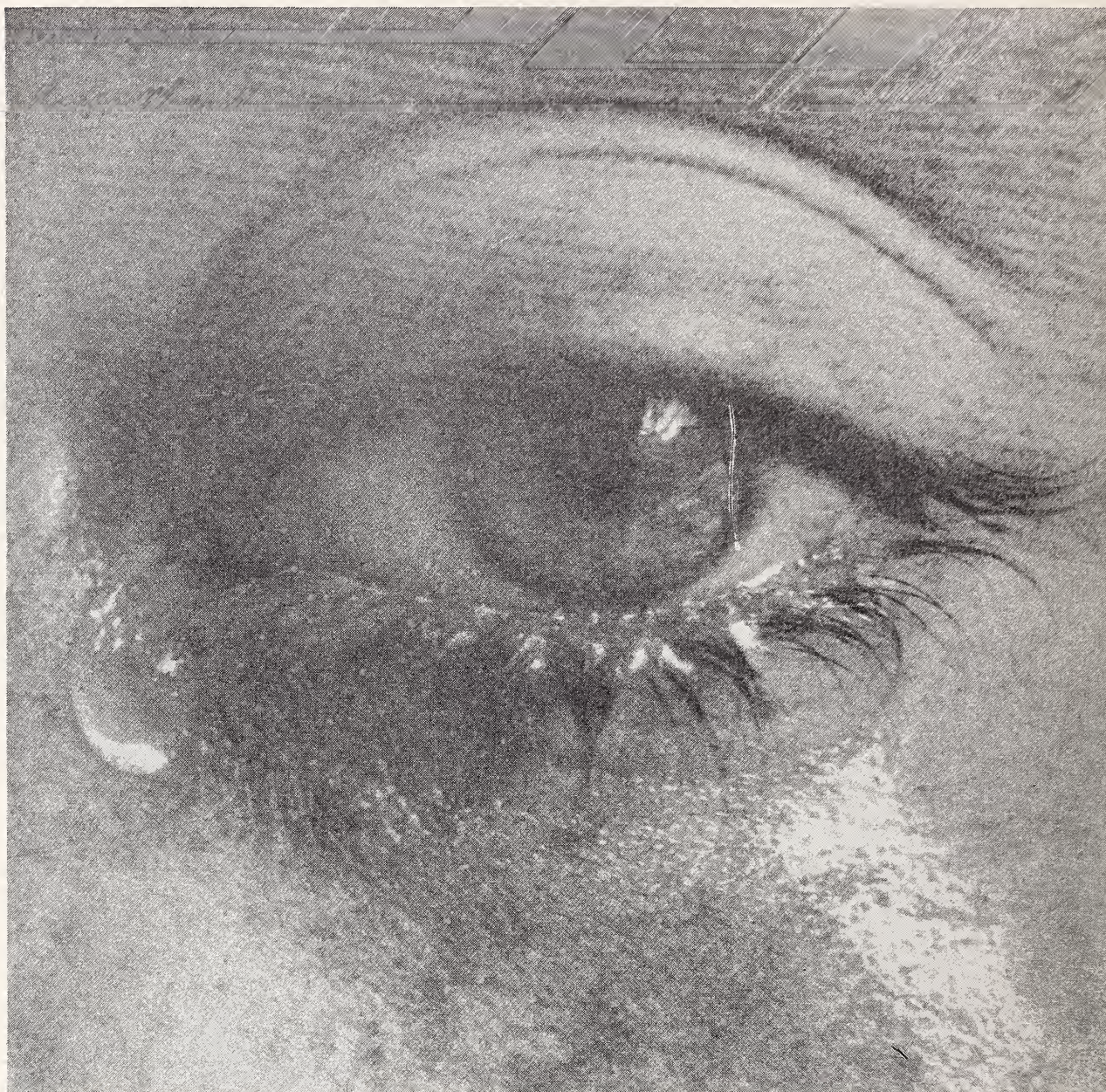
For complete details, consult latest
Schering literature available from
your Schering Representative or
Medical Services Department,
Schering Corporation, Bloomfield,
New Jersey.

*Schaefer, L. E.: Clin. Med. 8:1343, 1961.

S-963

A CASE FOR HALDRONE[®]

(paramethasone acetate, Lilly)



Haldrone is highly effective in suppressing the manifestations of HAY FEVER and pollen allergies, even when administered in low dosage. (Haldrone is approximately nine times as potent as hydrocortisone in ACTH suppression tests in man.¹) With average dosage, only minimal changes occur in regard to sodium retention or potassium excretion. Haldrone is comparatively economical for your patients, too.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

240032



Suggested daily dosage in hay fever:
Initial suppressive dose . . . 4-8 mg.
Maintenance dose 2-4 mg.

Supplied in bottles of 30, 100, and 500 tablets.
1 mg., Yellow (scored)
2 mg., Orange (scored)

1. Accumulated reports from thirty-six clinical investigators: Lilly Research Laboratories.

Corporate Tax Shelter For Doctor

Edward Jacobson

When the author wrote that the tax advantages to be secured by a Professional Corporations Act "while a matter of some familiarity to corporate executives, accountants, tax lawyers and insurance men are not equally well known to small business and professional men . . ." he certainly was thinking of the majority of doctors. His explanation of the problems involved in securing the opportunity for professional men to gain security for their later years is lucid and intriguing to the tyro in legislative matters.

INTRODUCTION

IT IS an honor and a privilege to appear before the Fall Clinical Congress of the Arizona Chapter of the American College of Surgeons. Your organization has made so many substantial contributions to the health and welfare of all of us that any guest with even a nodding acquaintanceship of the history and past activities of the College would share these feelings. Anyone who has ever needed the services of a hospital, for illustration, owes a debt of gratitude to the American College for the establishing and maintaining of hospital standards and accreditation.

In another sense, it is a somewhat disturbing experience to appear at a meeting where the other addresses deal with the results of original research on the outer borders of an expanding medical knowledge.

My subject relates not to the knowledge of medicine but to the economic problems of all professional men. The description of a possible professional corporate device which is my subject matter is not the result of original research on my part, but, instead, is a subject being heavily discussed in all current professional literature. Nonetheless, it is, I believe, a subject of importance and, I hope, one of interest to the group.

Briefly stated, the problem is whether it is possible for professional men to secure some or all of the substantial tax advantages available under our present laws to employees of corporations, while still preserving the ethics, traditions, responsibilities and controls so necessary to and inherent in professional practice.

TAX ADVANTAGES

At the outset it might be well briefly to examine the nature and character of some of these tax advantages now available to corporate employees. What follows is not intended to be a complete list, nor is it intended to be the sort of detailed discussion thereof that would be expected of a tax practitioner (which I am not). Instead, it is intended only as an outline of some of the ways in which corporations have provided an opportunity for their employees to set aside a nest egg for later years during their period of high income at the prime of their business life when they otherwise would have been beset with high personal income tax rates. (It must be understood that each of the following may be availed of by corporations only if the "detailed rules of the game" — the rules of the Internal Revenue Service — are followed):

1. A corporation may purchase group life insurance for its employees, payable to any beneficiary designated by the employee. The corporation may deduct the premium for tax purposes and the premiums are not taxable to the employee.

2. A corporation may also purchase group medical insurance coverage. Again, the premium is deductible to the corporation and not taxable to the employee.

3. A corporation may provide a plan for the payment of sick pay to an employee up to \$100 a week, again deductible by the corporation and not taxable to the employee.

4. Group accident and disability policies may be purchased by a corporation under certain conditions, with tax deductible premiums to the corporation and again not taxable to the employee.

Address presented at the Fall Clinical Congress of the Arizona Chapter of the American College of Surgeons, Apache Junction, Arizona, on November 18, 1961.

Mr. Jacobson is General Counsel for The Arizona Medical Association, Inc.

5. A corporate employer may adopt a qualified pension plan and deduct contributions thereto to an extent equal to the actuarially computed cost of providing the benefits of the plan, taking into consideration the portion of such accrued rights as may be granted employees due to longevity.

The contributions are tax exempt to the employee at the time made, and are taxable to him as ordinary income when received in his retirement years at the lower rates then obtaining. In addition, it is possible to provide for distribution of the commuted value of the benefits at retirement at capital gains rates.

6. A corporate employer may also adopt a profit sharing plan for the benefit of its employees. The corporation obtains an income tax deduction for its contributions from profits to the profit sharing trust, and these contributions are not then taxable to the employees. The contributions must not be in excess of 15 per cent of the employee's compensation. The earnings, profit and gains of the trust are exempt from income tax, thus permitting the contributions set aside in the trust to grow substantially in amount.

Upon the employee's termination of employment, should he take down his share of the trust fund in a lump sum, the law presently permits him to treat the entire amount as a long term capital gain. If, instead, he takes down his share of the trust in the form of retirement income, he pays income tax thereon at that time, but again ordinarily in a much lower tax bracket than would have been the case had he received the same amount during the course of his active employment.

Finally, upon the death of the employee the proceeds paid by the trustee to any beneficiary of the employee, other than his own estate, are exempt from Federal Estate Tax.

Key highly compensated employees may participate in these arrangements provided the participation is not discriminatory in their favor.

7. As a part of a regular employment agreement or policy, a corporation may deduct up to \$5,000 as a death benefit to an employee's widow, estate or other beneficiary, and further the widow, estate or other beneficiary is exempt from income tax upon receiving the same.

8. Corporations have Social Security bene-

fits available to their employees.

9. Under certain conditions, a corporation can invest surplus up to \$100,000 in dividend paying capital stock with only 15% of the dividends received being subject to corporate income tax, or an effective tax rate on dividends of slightly under 8%.

10. Corporations, though limited in charitable contributions to not in excess of 5% of their taxable income, may, subject to certain limitations, make contributions in excess thereof, which excess may be carried over to each of the next two succeeding taxable years.

11. Subject to certain limitations, corporations may accumulate funds for the purchase of equipment, etc. at corporate tax rates which may be below the individual tax rates of the employees.

BACKGROUND OF THE PROBLEM

The problem basically began in 1940 when the nation was confronted with a sharp increase in corporate income tax rates and an equally sharp increase in the personal income tax rates in the higher brackets.

The results of this were twofold. First, corporations began an intense exploration of the possibility of pensions and other fringe benefits. They found that high salaries alone were insufficient attraction to top men, for too small a percentage of such salaries remained after taxes to be a substantial contribution to a security nest egg for the later years.

At the same time, professional men, generally unable to practice in the corporate form, either due to statute or their code of ethics, or both, began deserting the ranks of their professions and affiliating themselves with business corporations in order to gain the advantages of the fringe tax benefits developed by industry.

In Congress, the attempt to cure the inequity in the form of the so-called Jenkins, now Simpson-Keogh Bill (H.R. 10) was designed to permit pension and profit sharing plans for self employed persons and partners in a partnership. Without attempting to relate the long and curious legislative history of this Bill, or its present technical posture in the United States Congress, suffice it to say that the comment in the October 28, 1961, Kiplinger letter is as good a summary as any — "Don't wait for a Federal law on pensions . . . probably won't pass." And this, in spite of the fact that the Treasury Department admits there is no logical or moral justification

for making tax advantages available to corporations which are not available to the self employed — except that the Department does not believe it can afford the revenue loss that would be occasioned thereby.

Meanwhile, with physicians again taking the lead, a medical partnership in Missoula, Montana in 1948 formed an association with the thought in mind of having enough of the characteristics of a corporation to be given corporate tax treatment. After litigation, first in the Montana District Court and next in the Ninth Circuit Court of Appeals, their position was finally upheld (*U. S. v. Kintner*, 216 F. 2d 418). This device began to look even more helpful when Dr. Galt of Texas won a similar victory for his clinic in the Texas District Court (*Galt v. U. S.*, 175 F. Supp. 360).

The Commissioner of Internal Revenue, however, did not give up so easily. On November 15, 1960 (after a series of hearings), Treasury Decision 6503 (comprising Regulations 301.7701-1 to 301.7701-11) was issued which stated that any association which had more corporate than non-corporate characteristics would be given corporate tax treatment. The characteristics selected were six in number, and were based upon a 1935 Decision of the United States Supreme Court entitled *Morrissey v. United States*, 296 U. S. 344. They were:

1. Associates.
2. An objective to carry on a business and divide the gain therefrom.
3. Continuity of life
4. Centralization of management.
5. Liability for corporate debts limited to corporate property.
6. Free transferability of interests.

However, the Commissioner took the position that state law would determine whether the relationships between the parties themselves and the parties and the public were such as to satisfy the corporate characteristics, and by the use of this test it has become the general feeling of tax practitioners that it is not now possible to form a Kintner type association in any of the 38 states which, like Arizona, has the Uniform Partnership Act. This is true for the reason that specific provisions of the Uniform Partnership Act deny the possibility of each of the last four of the so-called six characteristics.

It is against this background that various states have attempted to meet the problem head on by legislation designed to let some or all of the professions practice in a form which would permit the securing of corporate tax advantages while at the same time attempting to preserve therein the requirements of professional ethics.

The box score to date is as follows:

MEDICAL OR PROFESSIONAL SERVICE CORPORATION LAWS HAVE BEEN ADOPTED BY:

Medical	All Professions	Amended Uniform Partnership Act
Arkansas	Connecticut	Tennessee
Minnesota	Florida	
	Georgia	
	Illinois	
	Ohio	
	Pennsylvania	
	Texas	

Professional Service Corporations Acts have been introduced but have been defeated in the states of California, Indiana and Iowa.*

CONTENT OF THE ACTS

Interestingly enough, but for Tennessee, all of the Acts which have become law (and for that matter even those which have not) follow pretty generally the pattern of the American Medical Association's model Medical Corporations Act. Where the state concerned passed a Professional Corporations Act, but for the broader definitions, again generally the same provisions prevail.

Without any attempt at a detailed analysis of each Act introduced and passed, a general outline of the more important usual provisions is as follows:

1. *Name.* The Acts appear to authorize the creation of a variety of entities, all of which mean approximately the same thing and have approximately the same characteristics. They are called Medical Corporations, Professional Corporations, Professional Service Corporations, Professional Associations or Partnership Associations.

2. *Corporate Designation.* A variety of corporate designations are permitted at the end of the corporate name, including the words or

*Since making this address in mid-November the list has been expanded to include Oklahoma and Wisconsin in the "All Professions" column and South Dakota in the "Medical" column.

Original Articles

abbreviations "Chartered", "Limited", "Ltd.", "Professional Association", "P.A.". A few states permit the standard corporate designation of "Inc." or "Incorporated."

3. *Number of Persons.* Each sets forth the minimum number of persons who may form such a group, ranging from a low of one to a high of three.

4. *Application of the Business Corporation Act.* Each provides that, except as amended by the new Act, the general Business Corporation Act of the state shall apply.

5. *Corporate Name.* Most of the Acts require that the corporate name include the name of one or more of the shareholders and prohibit the inclusion of the name of any one who is not a shareholder. Some make provision that in the event of the death of a shareholder his name may be carried in the corporate name for no longer than a year and then only if some indication is made of the fact that he is deceased. A very few Acts (Illinois among them) appear to permit the use of a fictitious name.

6. *Membership.* Each of the Acts appears to require that a corporation may practice only one profession, and that each of the members thereof be a member of that profession. Some of the Acts, however, permit, or make specific reference to the fact that the usual coterie of non-professional employees which, by custom, would be present in any event, are not deemed to be excluded. In addition, many of the Acts provide specifically that the corporation may own such real estate and be obligated for such mortgages, etc. as are necessary or convenient to the conduct of its business.

7. *Suspension or Revocation of License.* Each of the Acts makes it clear that when one member of the corporation's license is suspended or revoked that member must either promptly disassociate himself with the corporation, or, in the alternative, the corporation's license is revoked.

However, provision is made for appeal to the Profession's Licensing and Disciplinary Board for hearings, etc. and sometimes for appeal therefrom to the Courts.

8. *Stock Purchase upon Death or Disqualification of a Member.* Each of the Acts recognizes that in the practice of a profession the ordinary corporate philosophy of free

transferability of stock would not make sense. Most of the Acts provide that upon the death or disqualification of a member his stock will be purchased at an agreed price, or at fair market value or, most frequently, at book value. Sometimes book value is set in the event the parties cannot agree upon a fair market price or have failed to establish the price themselves. Some of the Acts further provide for the inclusion in the Articles of Incorporation or By-Laws of agreements restricting the sale or other transfer of stock. Other Acts contain a prohibition against transferability.

9. *Professional Relationship and Liability.* All of the Acts provide that the professional relationship between the professional man and his patient or client, as the case may be, shall in no way be altered. Several specifically include the fact that this phrase is intended to mean, without limitation, that personal liability shall remain. Other Acts go on to state that in addition to unlimited personal liability between the professional man and his patient (never in place of it) the corporation shall be liable for the Acts of its officers, etc. to the extent of its assets.

10. *Assignment.* All of the Acts prohibit the assignment of the corporate license.

11. *Miscellaneous.* In addition, many of the Acts contain miscellaneous provisions for such things as initial fees, renewal fees, the usual severability clauses, etc.

12. *Association Characteristics.* Several of the Acts (generally those which are labelled Professional Association Acts) include, in addition to the foregoing features, various attempts at paraphrasing the Internal Revenue Department's regulations setting forth the characteristics which a partnership must have in order to be taxed as an association.

Tennessee must be considered by itself. Its Act amends the Uniform Partnership Act to provide in effect that a Kintner type association is permissible.

ARIZONA PROFESSIONS WHICH MAY NOT PRACTICE IN THE CORPORATE FORM

Title 32 of the Arizona Code lists 22 chapters under the general heading "Professions and Occupations." These include:

1. Architects, Assayers, Engineers, Geologists and Surveyors

2. Attorneys at Law
3. Barbering
4. Basic Science Certificates
5. Beauty Culture.
6. Certified Public Accountants
7. Chiropody
8. Chiropractic
9. Collection Agencies
10. Contractors
11. Dentistry
12. Funeral Directors and Embalmers
13. Medicine and Surgery
14. Naturopathy
15. Nursing
- 15.1 Dispensing Opticians
16. Optometry
17. Osteopathic Physicians and Surgeons
18. Pharmacy
19. Physical Therapy
20. Real Estate
21. Veterinary Medicine and Surgery

Of the 22, No. 4 (Basic Science Certificates) is neither a profession nor occupation, but, instead, an act setting up an examination and licensing board to insure that those practicing in the field of medicine and allied professions have a working knowledge of the basic sciences.

Of the remaining 21 professions or occupations, at least 8 can already practice in the corporate form by specific statutory permission. These 8 are:

1. Architects, Assayers, Engineers, Geologists and Surveyors (A.R.S. § 32-141)
2. Beauty Culturists or Cosmetologists (A.R.S. § 32-526.B, Supplement)
3. Collection Agencies (A.R.S. §§ 32-1023.B, 32-1051)
4. Contractors (A.R.S. § 32-1151)
5. Funeral Directors (A.R.S. §§ 32-1331.A, 32-1339.B)
6. Dispensing Opticians (A.R.S. § 32-1696 (1))
7. Pharmacists (A.R.S. §§ 32-1901.13, 32-1961, 32-1975)
8. Real Estate (A.R.S. § 32-2101(j)5, 6)

Another six fall in the questionable column as the statutes relating to these are silent on this aspect of their practice, and preliminary inquiry of their respective State Boards netted an "I don't know" answer. These include.

1. Osteopaths
2. Nurses
3. Physical Therapists

4. Naturopaths
5. Chiropractors
6. Barbers

It would be a good guess, however, that certainly the Osteopathic code of ethics and probably the codes of all of the others with the possible exception of barbers would prohibit corporate practice.

Finally, there are seven professions or occupations which by statute or code of ethics presently may not practice in a corporate form. These include:

1. Medicine
2. Law
3. Dentistry (A.R.S. § 32-1262.A)
4. Veterinary Medicine
5. Public Accounting (A.R.S. § 32-747(d))
6. Optometry
7. Chiropody (A.R.S. § 32-854)

Therefore, it would appear that a Professional Corporations Act could be useful to the members of at least 7 and probably 12 professions or occupations.

LACK OF UNANIMOUS RECEPTION

It should be made clear, however, that even if enabling legislation is enacted to permit these professions to avail themselves of the tax advantages of practicing in the corporate form, there is still to be decided within each profession the question of whether its principles of ethics will permit of this procedure.

The American Medical Association has jumped this hurdle for the doctors by dint of Resolution No. 27 passed by its House of Delegates at the Clinical Session held in Philadelphia on December 3, 4 and 5, 1957. The resolution reads:

"Resolved, that the House of Delegates affirm that it is within the limit of ethical propriety for physicians to join together as partnerships, associations or *other lawful groups* provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians." (Emphasis supplied)

And, as a matter of fact it is interesting to note that the "idea" of a Professional Corporations Act is generally ascribed to Mr. Bernard Hirsch, a member of the Legal Staff of the American Medical Association who drafted the so-called model Medical Corporations Practice Act. And, in each such state, the Medical Association was in the forefront in aiding in the drafting and passage of the law.

Original Articles

At the same time, however, there is no such unanimity of approval among lawyers.

The American Bar Association has not as yet taken any position on the matter of a Professional Corporations Act.* And, according to a June 20, 1961, letter to me from Mr. Lewis Powell, Jr., Chairman of the Special Committee on the Economics of Law Practice, apparently there is not as yet even a request for consideration of the matter pending before the Ethics Committee of the Bar. However, the October 1961 Bulletin of the American Bar Association's Section of Taxation contains a 14 page report entitled "Report of the special committee to cooperate with the ABA Committee on Professional Ethics re Associations of Attorneys taxable as Corporations." This Report contains no overall conclusions and deals specifically with Kintner-type associations and their impact on the legal canon of ethics. Nonetheless, it does raise some questions which would apply particularly to legal corporations.

In California, such legislation was proposed to the last session of the State Legislature but died in the State Senate principally due to opposition of the California Bar Association.

In Connecticut, lawyers, though having such an act available to them, are apparently awaiting a statement from the American Bar Association before availing themselves of its benefits.

However, on October 11, 1961, in a case entitled "In re The Florida Bar," the Florida Supreme Court held that:

"If a means can be devised (and the reference is to the Florida Professional Corporations Act recently passed) which preserves to the client and the public generally, all of the traditional obligations and responsibilities of the lawyer, and at the same time enables the legal profession to obtain a benefit not otherwise available to it, we can find no objection to the proposal." (Explanatory insert supplied)

In Indiana, although the Bar Association took no formal stand, we are told that 75% of the lawyers appearing before legislative committees took a negative stand and were instrumental in its defeat.

In Iowa, the Bar Association took no stand on the Iowa Act that failed, and the Iowa Bar Association is itself now preparing a bill for

presentation to the 1961 session of the Iowa Legislature.

In Minnesota, the bill was originally introduced as a Medical Corporations Act. At the request of the Minnesota Bar Association the act was amended in the Legislature to include all professions. Thereafter, the Ethics Committee of the Bar Association objected, the amendment was withdrawn, and the bill finally passed as a Medical Corporations Act only. Now, the Retirement Committee of the Minnesota Bar has drafted its own legislation which is proposed to be introduced at the next session of the Minnesota Legislature.

The position of the Ohio Bar Association set forth by its Executive Committee on October 7, 1961, requests lawyers to withhold availing themselves of new Ohio Professional Associations Act pending completion of the Bar's study thereof and determination of policy.

We learn from the Secretary of the Pennsylvania Bar Association that the Pennsylvania Bill (which is now law) was supported by the Bar Association and apparently some professional legal corporations were formed. Unfortunately, however, it now appears that a problem has arisen in that the Pennsylvania law permits a lay person to serve as a stockholder, and the Ethics Committee of the Pennsylvania Bar is now engaged in making a new study of the matter.

This "tally of positions" is incomplete. Although the Bar Association of each state in which such legislation was introduced, was contacted, there were many instances in which the office staff at the other end of the phone were vague and wholly unsure of what position the Association had taken. In most instances they were equally unsure whether any lawyers had availed themselves of the benefits of adopted Acts.

But even from this small sampling of states where the Bar's position is known, we can make a few observations:

1. Lawyers cannot necessarily be counted upon to help doctors secure the passage of Professional Corporations Acts.
2. Acts drafted and passed in haste may well create more problems than they solve.

One group, however, which can certainly be counted upon for substantial support would be the insurance industry. The reason for this is that many of the principal tax advantages which

*The Ethics Committee of the American Bar Association in Opinion 303 issued November 27, 1961, has given its approval providing certain safeguards are met (See 48 A.B.A.J. — (1962)).

such acts provide are advantages which involve either the direct purchase of insurance or programs which are insurance-funded.

POSITION OF ARIZONA BAR ASSOCIATION

Your speaker is a member of the Economics of Law Committee of the Maricopa County Bar Association. He was one of a subcommittee of two to present the case for a Professional Corporations Act to this Committee with a view toward securing its recommendation as to how the matter should be presented to the State Bar Association. While the conclusions are tentative at this stage, I believe a fair summary might be as follows:

1. The Board of Directors of the State Bar Association would probably be unwilling to take any position on such legislation unless and until the membership itself had been polled.

2. The annual meeting of the State Bar Association occurs in the Spring, generally after the Legislature has adjourned. Therefore, unless some earlier means of polling the membership is arranged, it is not likely that the Bar Association will take any stand on such legislation introduced at the forthcoming session.

3. To have a special meeting of the membership of the Bar prior to the convening of the Legislature is, for practical purposes, impossible.

4. The subject matter is both sufficiently controversial and sufficiently complicated as to perhaps not lend itself to a polling of the membership by mail.

If I were a gambling man asked to forecast what the final position of the Arizona Bar Association might be (assuming the American Bar Association continues to take no stand or permits each State Association to decide for itself) my guess would be that at best only a mild approval might be secured. And, the basic reason for that guess is that even assuming the legislation is drawn in such "fashion" as to completely safeguard the ethics of the profession, and even though the tax advantages can only be described as substantial, there will be significant opposition based upon tradition alone.

It is my hope that the Bar can be encouraged to appoint a special subcommittee to begin study of the matter now so that at least it can be fully reported on and ready for action at the

Spring meeting of the Association.

LEGISLATIVE DIRECTION

From the point of view of legislative strategy, the presently unknown position of the Arizona Bar Association, together with the unknown position of some of the other important professions (such as dentistry, accounting, osteopathy, etc.) makes it difficult to decide whether to submit to the Legislature a Medical Corporations Act or a Professional Corporations Act.*

If only a Medical Corporations Act is submitted, the difficulties of "trying to satisfy everybody" are removed. But, at the same time, such proposed legislation immediately becomes subject to wholesale and broadside attempts to amend in order that other professions can be included, and further becomes subject to the possible misconstruction that the Legislature is favoring the doctors.

Still a third route is to submit two bills as was done in Illinois, one a Medical Corporations Act and the other a Professional Corporations Act. It is interesting to note, however, that while the Illinois Legislature passed both pieces of legislation, the Governor vetoed the Medical Corporations Bill on the ground that the Professional Corporations Bill would accomplish the objective.

SUMMARY AND WARNING

For reasons previously outlined, it would not be fair to assume that such legislation would meet with wholesale acclaim and find quick and easy passage through our Legislature.

We can neither expect unanimity of approval among the professions nor can we hope for freedom from doubt as to whether the ethics of each of the professions is preserved. In addition, we must assume that custom and tradition will itself play a strong opposing role.

Next, the tax advantages to be secured, while a matter of some familiarity to corporate executives, accountants, tax lawyers and insurance men, are not equally well known to many small business and professional men, or to cattlemen, farmers, etc. And, these groups are heavily represented in the Legislature. Unfortunately, these tax advantages require careful and detailed explanations not always quickly understood by those who have not had to deal with such problems.

*Such legislation, drafted by the writer, has now been introduced as S.B. 185 and H.B. 287.

Finally, there has yet to be a case in court in which the question of whether the Internal Revenue Service will grant the corporate tax advantages to a professional corporation has been decided. Nor, can we assume for certain that such a case would be decided in favor of the taxpayer. The Internal Revenue Service regulations make it clear that it reserves the right for tax purposes to ignore the law of the states and determine the tax treatment to be given any organization by its own evaluation of organizational characteristics. In other words, the Service has given warning that a state's characterization of an organization as a corporation will not be binding upon it.

However, there is a "feeling" (and at this point it can be described as no more than a "feeling") among tax practitioners that the Internal Revenue Service will probably not be able successfully to fly in the face of a direction already taken by a substantial number of states and now "in the mill" in even a greater number.

Ed.'s Note: The proposed legislation became law on March 20, 1962 and it is reproduced in this Issue beginning on Page No. 61A.

It was, therefore, my recommendation to the Arizona Medical Association that a bill be submitted to the forthcoming session of the Arizona State Legislature for a Medical Corporations Act or a Professional Corporations Act, or both, depending upon which route appears to have the greatest opportunity to succeed. This recommendation was given with the understanding that as time went on and decisions came down from various Courts, any Act, however carefully drafted, might well have to be later polished by amendment. It was further given with the understanding that there was the remote chance that the Internal Revenue Department might declare that such Acts do not provide the tax advantages hoped for. Nevertheless, with the probabilities being so clearly the other way and the opportunity for professional men to gain security for their later years so important, it was the writer's belief that such legislation should be introduced at this time.

THANKS — BUT WHAT DO YOU HAVE TODAY?

Americans traditionally take the past for granted and live with a foot in the future. This is a sign of health in a country that is still growing. . . . People are generally pleased and relieved that drugs have been found to cure pneumonia, tuberculosis, scores of infectious diseases, and to improve many other conditions. . . . (Yet) the more we achieve the more we are expected to achieve. "Thanks a lot for cortisone, but what did you do for me *today?*" To some this attitude may seem cruelly ungrateful, but basically it serves as a useful stimulant to progress. The day America finds time to compose hymns of thanksgiving to producers will be the day we watch the funeral of progress.

Austin Smith, M.D., Pharmaceutical
Manufacturers Association president,
at PMA regional meeting.

The Present and Potential Usefulness of the Cardiopulmonary Laboratory

Thomas P. K. Lim, M.D., Ph.D.

Cardiac catheterization, phonocardiography, oximetry and pulmonary function tests evaluating ventilation, perfusion, and diffusion have become increasingly important in the practice of medicine. The author reviews the usefulness of these studies and describes the procedures available at the newly opened cardiopulmonary laboratory at Tucson Medical Center.

IN APRIL, 1961, the Cardiopulmonary Laboratory was opened at the Tucson Medical Center, Tucson, Arizona. The establishment of this new laboratory signifies a valuable addition of diagnostic and research facilities in the community. The operation and the functions of the laboratory might be of interest to those physicians who wish to have the cardiopulmonary function tests performed for their patients. The capacity and the facilities of the laboratory might be informative to those scientists who seek an answer to a specific subject in cardiopulmonary problems.

The function tests of the lungs and the heart are a relatively new chapter in medicine. Among many factors which brought this scientific discipline into its present status, four major factors may be mentioned. The first is the prolonged life span of man, which proportionally increases the incidence of chronic diseases. The second, the phenomenal advancement in technology, which provides reliable and sensitive tools for the accurate measurement of dynamic characteristics of the human body. The third, the advancement of physiology as an "exact science," which quantitates, instead of qualitates, various biological variables. Finally, the fourth, the rapid expansion of geophysical frontiers, which necessitates a better understanding of the respiratory and circulatory system under unusual environments.

During the last thirty years many of the cardiopulmonary function tests have stood the test of time and have proven themselves to be of a definite value in the diagnosis and the management of patients. Thus the major medical cen-

ters in the nation and abroad now have a cardiopulmonary laboratory as an integral part of medical and surgical diagnostic units. Then, what comprises the cardiopulmonary function tests and what are their values in clinical medicine? For the sake of convenience the tests may be arbitrarily divided into A) those concerned primarily with the cardiovascular functions and B) those related principally to the respiratory functions. On the cardiac side three major tests may be mentioned, namely:

- (1) Cardiac catheterization
- (2) Phonocardiography
- (3) Oximetry

The usefulness of the cardiac catheterization in the diagnosis of congenital and acquired heart disease needs no further explanation. The direct determinations of the intravascular, intra-auricular, and intraventricular pressure and blood gas content enable us to obtain an objective assessment of the hemodynamic disturbance and the cardiac impairment. In view of the recent advent of the surgical techniques of extracorporeal circulation, the cardiac catheterization is one of the most important pre-operative diagnostic procedures in cardiac clinics.

The renewed interest in phonocardiography is making impressive contributions by constantly refining one of the ancient diagnostic techniques known in medicine; auscultation. The elective recording of heart murmurs of various frequencies or the simultaneous monitoring of the mechanical events of ventricles with heart sound ("apexcardiogram") provides objective data upon which the judgment and interpretation of the patient's condition and prognosis can be made. Not only the visual differentiation

Director, Cardiopulmonary Laboratory, Tucson Medical Center, Tucson, Arizona.

Original Articles

of the intensities, shapes, or temporal relationships of various heart murmurs but also the unbiased identification of much more subtle events such as the opening snap of the mitral valve, the splitting of the 2nd sound, and the appearance of the 3rd sound can be made.

The advantage of oximetry is perhaps in its simplicity. Following single or multiple injection of an indicator, the dilution pattern ("time-concentration characteristics") of the indicator is monitored through an earpiece or a cuvette. For this reason of technical simplicity, oximetry has a definite value as a preliminary screening test before catheterizing the patient. By analyzing the time-concentration curve graphically it is possible to estimate one of the important variables of blood flow; the cardiac output. It is now well established that the cardiac output estimated by the indicator-dilution techniques compares favorably with that obtained by the direct Fick principle. Another use of oximetry is in the detection and localization of central shunts. As a rule, moderate and large shunts in either direction or bidirectional shunts can be detected. A notable technical advancement in this field is the introduction of new dyes (Fox-green and Coomassie blue) which do not distort oxygen saturation and do not stain the skin.

It is often convenient to study the pulmonary function from three different aspects:

- (1) Ventilation (gas phase)
- (2) Perfusion (blood phase)
- (3) Diffusion (barrier phase)

In the broadest sense, ventilation deals with the mechanical aspect of respiration, such as air flow, air pressure, gas exchange and lung volume, whereas perfusion is directly related to flow, pressure, and volume relationships of pulmonary circulation. The barrier phase of diffusion is concerned with the processes of gas diffusion across the alveolar membrane. Unfortunately there is no single test which will give information regarding all three of the integral aspects of pulmonary function. However, several tests are available at present which are useful in evaluating each facet of pulmonary function singularly or in combination with other aspects depending on the nature of pulmonary ailment.

The minimum tests required for the evaluation of ventilation (gas phase) consist of (A) estimation of resting total ventilation, (B) measurement of maximum breathing capacity (amount of expired air obtainable during maxi-

mum voluntary effort of breathing), (C) evaluation of vital capacity (static) and timed vital capacity (dynamic), and (D) determination of total lung capacity and its subdivisions (by means of nitrogen or helium dilution technique). Perhaps one of the most valuable aspects of these ventilatory tests is that the result provides *objective* and *quantitative* data of patient's pulmonary condition. Even to the experienced chest physician it is often difficult to gauge the degree of pulmonary impairment in terms of airway obstruction or the depletion of ventilatory reserve. It is not infrequently observed that a seemingly normal patient reveals an alarming degree of disturbance while a dyspneic patient shows a minimum amount of dysfunction. In asthma and chronic bronchitis, the maximum breathing capacity and the timed vital capacity will provide valuable information concerning the degree of obstruction due to bronchospasm or exudate. In emphysema, the estimation of lung volume will give useful data as to the degree of pulmonary enlargement. Needless to say these tests are a valuable guide not only in medical treatment but also in pre- and post-operative assessment of patient's pulmonary status.

One of the important concepts in respiration is that of the alveolar ventilation. It is sometimes called the effective ventilation because this is the actual amount of air which undergoes gas exchange with the pulmonary capillary blood. Due to the unavoidable anatomical dead space, not all the inspired air is engaged in the gas exchange. In healthy normal subjects only 70-80% of the inspired air is functionally effective and the rest of the ineffective air is called the dead space ventilation. The alveolar ventilation is influenced markedly not only by a simple alteration of respiratory pattern such as from deep to shallow breathing but also by pathological changes of pulmonary vessels and tissues. Numerically, the alveolar ventilation (V_a) is defined as follows: $V_a = k \cdot V_{CO_2} / P_a CO_2$, where k , V_{CO_2} , $P_a CO_2$ represent a constant factor, the CO_2 output, and the simultaneous arterial CO_2 tension, respectively.

In the assessment of ventilation, one of the essential features is that of the arterial blood analysis. Regardless of what is happening in the gas phase of respiration, the direct forces which control the respiration are the chemical constituents of the arterial blood. Nevertheless,

the evaluation of patient's arterial blood has been unduly neglected. This unfortunate situation largely stems from the misconceptions that the arterial blood sampling is not always successful and that the analytical techniques for blood gases are by no means practical. It must be emphasized that the arterial puncture, when it is performed properly with Cournand's or Riley's needle, is as equally successful as any routine venous puncture while the utilization of modern instruments allows the analysis of blood gases for O_2 saturation, pH or PCO_2 as practical as any other routine laboratory techniques.

The real understanding of the over-all pulmonary function is not complete without knowledge of the pulmonary blood flow because the pulmonary ventilation is an integral function of the gas phase (ventilation) and the blood phase (perfusion) of the metabolic gases across the alveolar membrane. Thus it is just as essential to know the volume and distribution of pulmonary blood flow as it is to know the volume and distribution of alveolar ventilation. Theoretically, the estimation of the pulmonary blood flow requires the data on gas exchange (either O_2 uptake or CO_2 output) and the simultaneous blood gas compositions of both mixed and pulmonary venous blood. Usually it is a common practice to obtain the mixed venous blood centrally during the right heart catheterization for the direct analysis and the pulmonary venous gas composition is derived indirectly from the graphic analysis.

The significance of pulmonary blood flow becomes meaningful when we interpret it in conjunction with the alveolar ventilation; namely, in terms of "ventilation-perfusion ratio". Here ventilation represents alveolar ventilation, and the perfusion, the pulmonary blood flow. In normal men under resting condition the alveolar ventilation is about 4 L/min and the pulmonary blood flow is about 5 L/min giving the ventilation-perfusion ratio of 0.8. Although the relationship between alveolar ventilation and pulmonary blood flow varies widely under various conditions two extreme cases may be mentioned. One is the poorly ventilated and well-perfused lungs and the other, the well-ventilated and poorly perfused lungs. The former is observed in atelectasis or in asthma, whereas the latter is exemplified in pulmonary embolism. There are numerous intermediary forms between the

two depending upon the pulmonary conditions involved.

Despite normal ventilation and perfusion, respiration can be greatly disturbed whenever there are enough pathological changes which disturb primarily the gas diffusion through the alveolar membrane. At present two gases (O_2 and CO) are commonly used for the determination of diffusion capacity of the lungs and it is defined as the O_2 (or CO) uptake per minute divided by the pressure head for O_2 (or CO) across the alveolar membrane. Clinically the diffusion impairment is often seen in various conditions such as pulmonary edema, sarcoidosis, pneumoconiosis and the "alveolar capillary block" syndrome.

Being a diagnostic unit, the functions of the cardiopulmonary laboratory has to be harmoniously coordinated with other diagnostic services such as the electrocardiographic and the roentgenological departments. In relation to the clinical branches, the laboratory has close associations with internal medicine, pediatrics, thoracic surgery and anesthesiology. Occasionally the cooperation with the sections of aerospace medicine and industrial hygiene is also needed.

A list of equipment presently available at the Cardiopulmonary Laboratory of Tucson Medical Center is presented for two reasons. One is to assist those who wish to know the extent and facilities needed in establishing a cardiopulmonary laboratory. The second is to encourage those who are interested in participating in clinical research activities at our laboratory by utilizing these instruments.

1. Nitrogen meter (300 AR Nitralyzer)
2. O_2 analyzer (Beckman, E2, triple range)
3. Infra-red CO_2 analyzer (Spinco, Model LB-1)
4. CO analyzer (Beckman, Model 15A)
5. Sanborn recorder (Model 650)
6. Gas analyzer (Scholander)
7. Blood gas analyzer (Van Slyke, manometric)
8. pH meter (Astrup)
9. Spirometers (Collins, 120 L and 9 L capacities)
10. Pulmotest (Instrumentation Associates)
11. Universal ergostat (Fleisch)

The Cardiopulmonary Laboratory in Tucson Medical Center subscribes to the proposition that the "art of healing" has to be based on the "science of healing." As in other branches

Original Articles

of scientific discipline, medical science does not remain stagnant but progresses rapidly. Numerous new concepts and methods of cardiopulmonary function tests are coming into existence almost every month and every year. These have to be critically assessed and assimilated before they are applied to the patient. Besides the in-

quisitive mind must always seek a solution of problems through persevering efforts of research. The ability of adding new knowledge to medical science through research is not only one of the basic qualifications for a medical center of high standards but also is rewarding in correct diagnosis and better treatment of the patient.

NURSING HOME ADMINISTRATION

Twenty-six thousand ideas, each on a separate slip of paper, formed the research data for a book, "Nursing Home Administration," published September 1, 1961 by the Attending Staff Association, 7601 E. Imperial Highway, Downey, California as one end product of a grant from the Bureau of Hospitals, California State Department of Public Health, for improving standards of care in nursing homes and related facilities.

Research procedure for the project included a difficulty analysis to assess the training needs as seen by nursing home administrators themselves and also as seen by related professional persons. The structure of the book is an outline of these actual difficulties. Content of the book came from a method analysis made by written workshop sessions in many cities of California. The 26,000 ideas collected were drawn out of the unrecorded experience of nursing home administrators and related professional persons.

The book is not only a systematic array of practical know-how for meeting the needs of these administrators but also an INSTRUCTIONAL TOOL to facilitate establishment and teaching of courses and institutes in colleges and adult education programs.

The Effect of Carbon Monoxide on Blood Sugar

Edward L. Breazeale

James D. Van Horne

Carbon monoxide inhalation will produce hyperglycemia in both man and animals. The authors record evidence of carbon monoxide induced hyperglycemia in animals. Insulin administered prior to carbon monoxide inhalation reduced blood sugar elevation and hastened recovery from coma in rabbits.

RECENTLY the question of what effect carbon monoxide would have on blood sugar levels was brought to the attention of this laboratory. The problem presented itself as the result of the death of a motorist suspected of driving while under the influence of alcohol. Briefly, the case history is given below.

The subject was a male, about 65 years old, and a known diabetic, receiving 25 units of P.Z.I. daily. He was delivering some potted plants to a town about 65 miles south of Tucson on 22 December. The weather was cool and the car windows were closed. He had been driving for almost an hour when the Highway Patrol noticed his car weaving on the road and the driver slumped over the wheel. The automobile finally ran off the road and came to a halt. When the patrolman opened the car door the driver fell from his car in a stupor. His face was flushed, eyes closed and lips cyanotic. He was placed in the patrol car and taken to headquarters where he died during the booking process. There was no odor of alcohol on his breath, or about his body. A blood sample was taken at autopsy about one hour after death prior to embalming and sent to this laboratory for a standard blood alcohol test.

The sample was received some 15 hours after death. Standard chemical tests were negative for alcohol. Since the specimen showed the typical cherry red color, analysis for carbon monoxide was made and found to be 28% of saturation. A blood sugar determination was made which showed a level of 405 mgs./100,

fifteen hours after death. The estimated blood level at death was 500 mgs./100, or possibly even higher. The results presented several questions:

1. How much decrease in carbon monoxide and sugar was there in the 15 hours interval between death and analysis?
2. What effect, if any, would carbon monoxide have on the blood sugar level?
3. Knowing the elapsed time between death and analysis (15 hours), could the respective concentrations of sugar and carbon monoxide at time of death be estimated with any degree of accuracy?
4. If it were found that carbon monoxide would produce hyperglycemia, would such an individual respond to the injection of insulin?

After conferring with several physicians who treat a number of diabetics, and also a pathologist, we were unable to obtain the answers to our questions. They all agreed that the sugar level at death would have been considerably higher, and that at even 500 mgs. of sugar may or may not produce coma. They also ventured the opinion that the 28% of carbon monoxide was probably low. A search of the literature found several references having to do with the problem at hand.

The earliest reference to the relationship between carbon monoxide and hyperglycemia was in 1857 by Charles Bernard. Between that first mention and 1908 there were several investigators working in the field. They all mention the fact that carbon monoxide will produce hyperglycemia with "elevated blood sugar levels." In

Arizona Serological Laboratory, Tucson, Arizona.

Original Articles

1908 Ziesch(1) wrote an extensive review of the subject from a chemical standpoint. In 1934 Yault et al.(2) published their findings in U. S. P. H. S. Bul. 211 in which they state that carbon monoxide will definitely produce marked hyperglycemia in animals. In 1940 Smith and Penrod(3) reported on the effect of carbon monoxide on insulin and sugar tolerance in the rat. Their studies indicated that carbon monoxide will not "sensitize" an animal to excessive sugar or carbon monoxide. In 1952 Suzuki, Takahasi and Tamabuti(4) reported their results of producing hyperglycemia in animals by carbon monoxide. They gave an excellent bibliography on the subject at the end of their paper. Since very little was found in the recent literature relative to the inter-relationship of carbon monoxide and hyperglycemia, the following experiments were carried out in an attempt to answer the original four questions propounded in the

first of this paper. Two full grown, healthy rabbits, each weighing approximately 2 kilos, were selected for this experiment. Control blood samples were obtained by heart puncture, six ml. of blood being collected and oxalated. The animals were then placed in plastic boxes, and the exhaust from an automobile engine pumped into the chamber. At the first sign of distress, about 4½ minutes, the animals were removed, and a second blood specimen was obtained. The rabbits were then returned to the chamber, and the exhaust gas run in until the animals went into a deep coma, after about 25 minutes. A third set of blood specimens were collected. Each sample was divided into two portions. The first set was analyzed immediately for sugar and carbon monoxide content, while the other half was allowed to remain at room temperature for 15 hours and then analyzed. The results are given in Table 1.

TABLE 1

	Time in Chamber	Sugar mg. %	Immediate		15 hrs. room temp.	
			Carbon monoxide Percent saturation	Sugar mg. %	Carbon monoxide Percent saturation	Sugar mg. %
Rabbit 1	0	135	0	92.5	0	21.5
	4	173	22	108.0	8	82.5
	25	384	45	312.0	25	222.3
Rabbit 2	0	110	0	82.0	0	70.2
	25	312	41	190.0	20	130.6

These figures definitely show that carbon monoxide will produce hyperglycemia, and that on standing for 15 hours *in vitro*, both the sugar and the carbon monoxide levels will show a marked decrease, with sugar about one third and carbon monoxide about one half.

To determine what effect, if any, insulin would have on the carbon monoxide and the hyperglycemia, the experiments outlined below were carried out.

Six healthy rabbits, each weighing about 1.5 kilos, were bled by heart puncture, and sugar and carbon monoxide determinations were made. Two of the animals received 2 units of U-40 Insulin (Lilly) directly into the heart at the time of the first bleeding. All six animals were

placed in the plastic gas chamber and the exhaust from an automobile was introduced. As each animal went into coma it was removed and rebled. Two of the four untreated animals then received 2 units of U-40 Insulin into the heart. The time for recovering in the open air was noted. The four untreated animals were the first to show distress and the two that had the injection of insulin prior to gassing were the last to show symptoms. A third set of samples was collected on the animals 30 minutes after they were removed from the gas chamber, at which time all had recovered. All blood samples were analyzed for blood sugar and carbon monoxide. The results are given in Table 2.

TABLE 2

Rabbit	Control		At Coma		30 Min. After Coma		Recovery Time Min.
	Sugar mg./%	CO ₂ Sal. %	Sugar mg. %	CO ₂ Sat. %	Sugar mg. %	CO ₂ Sat. %	
1*	125	0	250	52	160	35	25
2*	115	0	240	50	160	30	20
3**	117	0	180	35	130	14	8
4**	120	0	174	37	120	10	9
5***	118	0	250	54	128	10	7
6***	117	0	230	52	120	8	6

*Control, no insulin; **2 units insulin before gassing; ***2 units of insulin at coma.

The animals used in the experiment were smaller than those used in the first test. They were not held in the carbon monoxide atmosphere as long, and were not in as deep a coma as the first animals.

CONCLUSION

1. Carbon monoxide will produce marked hyperglycemia in healthy animals.
2. Carbon monoxide, as well as blood sugar, will decrease in blood specimens after collection.
3. Insulin administered prior to exposure to carbon monoxide will prevent the extreme ele-

vation of sugar and carbon monoxide in the blood, and also will hasten recovery.

4. Insulin administered at time of coma due to carbon monoxide will shorten the recovery time, and will hasten the lowering of the sugar and carbon monoxide in the animal's blood.

REFERENCES

1. Ziesch, H., Carbon Monoxide Poisoning in Diabetes Mellitus, *Montschi v. Unfalsh*, 15, 131-42, 1908.
2. Yault, W. P., Chornyak, J., Shrank, H. H., Pattee, F. A., and Sayer, R. R., U. S. P. H. S. Bul. 211, 1934.
3. Smith, E. and Penrod, K. E., Blood Sugar, Insulin, and Dextrose Tolerance in Albino Rats Treated with Carbon Monoxide, *Proc. Soc. Exp. Biol. and Med.*, 45, 222, October, 1940.
4. Suzuki, T., Takahasi, K., and Tamabuti, K., The Role of Augmented Adrenalin Secretion from the Suprarenal Glands After Inhalation of Carbon Monoxide, *Tohoku J. Exper. Med.*, 55, 159, February, 1952.

THE REAL TRANSGRESSION

The sin in the orbit of the Kefauver hearings and his proposed new legislation lies *not* in the cost of drugs to the public; *not* in the accepted successful methods and sound traditional practices of pharmacy and medicine; nor is it in the economic system under which an American health team operates and serves the public. The real transgression is the tampering and meddling of certain misguided politicians with a progressing, dynamic plan of health care that is serving our American people so bountifully and so well. And I have the horrible suspicion that this tampering and meddling arises not as much from a sincere-at-heart design for the good of the people as it does from the motives of political expediency and selfish advantage.

Nelson M. Gampfer, Chairman of the Board
The Wm. S. Merrell Company, to the
Kentucky Pharmaceutical Association

Papillary Adenocarcinoma of the Thyroglossal Duct Cyst

Joseph Clawson, M.D.

Howard Kimball, M.D., F.A.C.S.

A case review of an unusual problem, with summary of comparable cases from the literature. Crile's work suggests the most effective suppression is with 3/4 gr. of thyroid extract daily.

PAPILLARY adenocarcinoma of the thyroglossal duct is a rare tumor. Only a few cases have been recorded thus far. The following report serves to add one more case to the literature.

CASE REPORT

An eighteen year old Mexican female was admitted to Maricopa County General Hospital 7-25-59 with a two month history of a firm cervical midline mass which was slightly painful. General physical examination revealed an obese healthy female with a 3 x 4 cm. firm mass at about the level of the hyoid bone fixed to the underlying tissues and moved upwards with swallowing. There was no palpable cervical adenopathy. The remaining history-and-physical examination was essentially negative. The preoperative diagnosis was a probable thyroglossal duct cyst.

Under general anesthesia the cyst, its entire tract, and the central portion of the hyoid bone were removed. The post operative course was uneventful.

The pathological specimen was a thyroglossal duct cyst containing both normal thyroid tissue and a papillary adenocarcinoma invading the hyoid bone.

Fourteen days later a wide local excision of this site plus a radical neck dissection on the left which included the remaining portion of hyoid bone was done. The left lobe and isthmus of the thyroid gland were also removed. The

right lobe was not exposed but palpated and no nodules were present.

The second pathological specimen revealed no tumor in any of the nodes, remaining hyoid bone, or resected portion of the thyroid gland. The patient refused to permit a radical neck dissection on the right.

Six months after surgery, three firm, fixed nodules about 1 cm. in diameter were palpated along the anterior border of the trapezius muscle on the left. A skeletal survey and chest x-ray at this time did not reveal any roentgraphically demonstrable bony metastases. The patient refused to have these nodules biopsied. She was then given 85 mc of radioactive iodine.

DISCUSSION

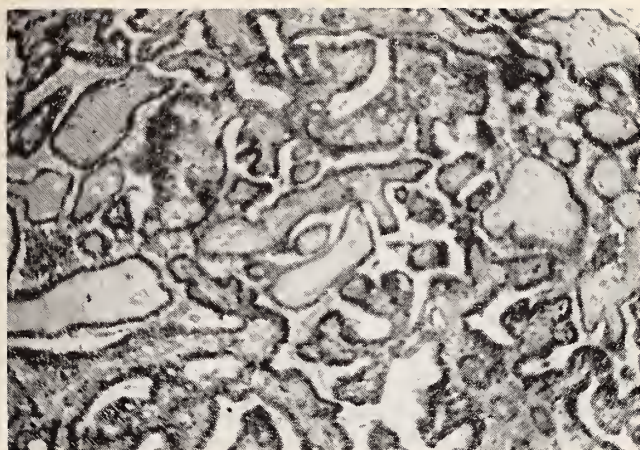
In each of the cases thus far reported a wide local excision of the cyst was done. In three of these cases a radical neck dissection (two unilateral, one bilateral) was also done.

In our case further surgery was refused so radioactive iodine was recently given. It is hoped that this will produce a total thyroidectomy so that at a later date the uptake of these "supposed metastases" might be enhanced. If the nodes enlarge in size or number we may give her external radiation or place her on a large daily dose of thyroid extract.

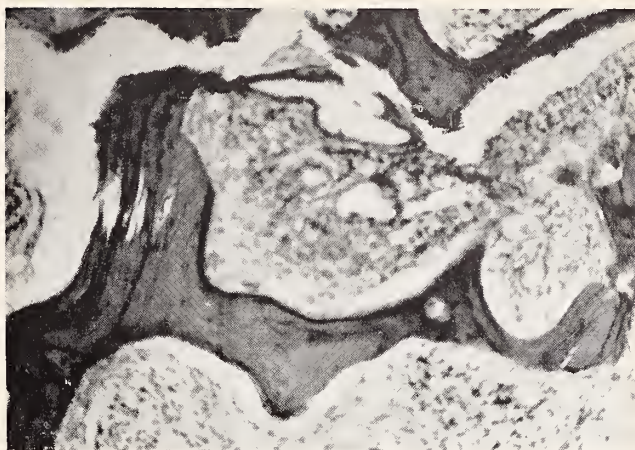
SUMMARY

A case of papillary adenocarcinoma of a thyroglossal duct cyst is reported. A tabulation of all the cases of this tumor reported in the literature is also made.

From the Department of Surgery, Maricopa County General Hospital, Phoenix, Arizona.



1. Papillary carcinoma in thyroglossal duct cyst.



2. Neoplastic thyroid acini in marrow of hyoid bone separate from the duct itself.

Author	Sex Age	Therapy	Followup
Owen & Ingelby(1)	F 45	Tumor incompletely removed; recurred 5 mos. later; re-excised	No recurrence after 21 yrs.; later developed carcinoma of ovary(2)
Hare(3)	M 6	Cyst removed; wide local exci- sion 14 da. later; recurrence 9 mos. later; re-excised	No recurrence after 18 years(4)
Aronoff(5)	F 48	Wide local excision	No recurrence after 11 yrs.; later developed carcinoma of the breast with axillary metastasis(6)
O'Kane & Straus(7)	F 75	Wide local excision	No recurrence after 1½ years
Keeling & Ochsner(8)	F 9	No positive nodes found in rt. radical neck dissection done 17 da. after cyst removal; pos. node found in lt. rad. neck dis- section 13 mos. later.	Died immediately post-op; metastasis to lungs and liver
Keeling & Ochsner (9)	M 41	Wide local excision	No recurrence after 2½ years(10)
Rees & Brown(11)	—	Wide local excision with bilat. neck dissection; pos. nodes found; X-ray therapy	No recurrences after 7 years(12)
Brown & Franklin(13)	—	In publication	
Clawson & Kimball	F 18	Wide local excision 14 da. after cyst removal plus left rad. neck dissection	Possible metastasis lt. neck 6 mos. later

BIBLIOGRAPHY

1. Owen, H. R. and Ingelby, H.: Carcinoma of thyroglossal duct. *Ann. Surg.* 85: 132-136, 1927.
2. Pettit, M. D., Women's Medical College, Philadelphia, Penna., Personal communication.
3. Hare, H. F., Cancer of thyroid in children. *Radiology* 28: 131-143, 1937.
4. Smedal, M. I., Lahey Clinic, Boston, Mass., Personal communication.
5. Aronoff, B. L., Papillary thyroid cancer originating in the thyroglossal cyst. *Am. Surgeon* 18: 362-371, 1952.

6. Aronoff, B. L., Personal communication.
7. O'Kane, C. R., and Straus, F. H., Papillary adenocarcinoma rising in association with persistent thyroglossal duct. *Ann. Surg.* 138: 805-806, 1953.
8. Keeling, J. H. and Ochsner, A., Carcinoma in thyroglossal duct remnants. *Cancer* 12: 596-600, 1959.
9. Keeling, J. H., and Ochsner, A., *Ibid.*
10. Ochsner, Alton, Personal communication.
11. Rees, C., and Brown, M. J., Cysts of the thyroglossal duct. *Am. J. Surg.* 87: 597-599, 1953.
12. Rees, C., and Brown, M. J., Personal communication.
13. Brown, M. J., and Franklin, G., Personal communication.

An Approach To The Treatment Of Juvenile Delinquency

Carl Breitner, M.D.

The treatment of Juvenile Delinquency has so far consisted predominantly of psychotherapy and milieu therapy unless an organic cause had been diagnosed.

The present report seems to indicate that somatic treatments such as drugs and localized electrotherapy may have a beneficial effect in certain cases. The article deals primarily with those cases which are not based on underlying organic or functional disorders and may therefore be labeled as "Idiopathic Juvenile Delinquency".

Treatment results would indicate that this type of disorder occurs in all social strata. This, and treatment results, indicate that the disorder is not caused solely by environmental circumstances.

JUVENILE delinquency has presented an increasing problem in all parts of the world where people are not satisfied with merely punishing or eliminating the individual who does not conform to the rules of his particular society. As long as punishment or rendering the offender harmless by incarceration is all that concerns us, the problem is simply one of dealing with a criminal. However, as soon as an attempt is made to reduce the incidence of anti-social behavior by changing the individual, problems arise. If we feel that a disorder exists, these problems involve specifically: (1) establishing of etiology, (2) understanding the nosology, and finally (3) treatment in order to eliminate the condition, rather than the individual.

Definition of Terms: The term "juvenile" obviously is applied to the young individual; that is, the child or adolescent for whom parents or society feel responsible and desire to guide. The term "delinquency" is probably less accurately understood. By definition (Webster) it is the "failure or neglect to do what duty or law requires." In the context of our present discussion, however, many of us feel that the delinquent is a rebel who may do his duty as he sees it, and often as his peers see it, but does not want to submit to the duties and laws imposed

upon him by elders who assume the right to define his duties and privileges for him.

We can readily see that the problem of delinquency is closely related to that of crime, except that the term crime is applied to a different age group.

Sometimes it also is difficult to distinguish between rebellion and crime. "Who can say where the rebel ends and the criminal begins?" writes Ben Karpman in a recent editorial.⁽¹⁾ "Rebellion has negative as well as positive aspects." A spy is a criminal in the eyes of the country against which he works but a hero in his own country. The juvenile may be delinquent in the eyes of his parents and the probation officer, but may become a hero to his own generation or a later one.

It is much easier to agree on the meaning of the term "juvenile delinquency" if we inject our own concept of "what is good for him" into the discussion. This also justifies our attempts to understand the causes of delinquency. There is one aspect of juvenile delinquency upon which most of us will readily agree. This is the failure to adapt, whether this failure be a result of illness or of other causes. Crime too usually results from maladaptation. To quote Philip Q. Roche,⁽²⁾ "Criminals differ from mentally ill people only in the manner we choose to deal with them." From the viewpoint of

Read at the Third World Congress of Psychiatry, Montreal, Canada, June 4-10, 1961.
Phoenix, Arizona.

psychiatry we are justified in considering juvenile delinquency a disorder of the mind which we hope to cure. We try to identify the disorder according to the official APA classification, or whatever one we use. This, however, is a difficult task because of the variety of conditions which may lead to delinquent behavior.

Diagnosis: The APA classification of personality disorders includes the sociopathic group, distinguished by the absence of any underlying disorder (including personality disorders). We must therefore determine whether any underlying disorder exists, and whether we are dealing with a personality disorder, e.g., an inadequate, compulsive or paranoid personality. Thus, we must exclude one personality disorder, because another personality disorder exists as the underlying cause. But let us assume that an underlying disorder is a psychoneurotic rather than a personality disorder. Then we have the further problem of determining whether such psychoneurotic disorder is a "symptom neurosis" or a "character neurosis." According to Noyes and Kolb,(3) however, we may at least hypothesize that both types stem from similar impulses, coming from the same pathogenic sources or experiences, but released in different fashions. To quote: "The psychoneurotic deals with the impulses by neurotic mechanisms. The character neurotic acts out impulses through anti-social behavior."

Nosology: The accepted classification of manifestations playing a role in the picture of JD includes *functional* disorders, such as psychoses with the inherent loss of judgment and inability to act in a rational manner. Such functional disorders also include psychoneuroses, particularly of the anxious or depressive varieties, and finally personality disorders, particularly of the sociopathic, antisocial reaction variety. We find certain other cases which fit better into a group of *organic* disorders such as psychomotor epilepsy or the clouded states associated with other forms of convulsive disorders, with or without electrically definable abnormalities. Naturally, in most cases we find a combination of factors. Mental retardation also may give rise to conditions classified as juvenile delinquency.

These are accepted and classified disorders leading to juvenile delinquency. However, in many cases one can rule out most of the underlying causes and a composite picture emerges, consisting of symptoms commonly not found

simultaneously in the same individual. This is the picture of the juvenile delinquent who poses problems in diagnosis and in therapy. Let us call this disease entity "idiopathic juvenile delinquency." This type of illness resembles somewhat the picture we use to describe as a sociopathic personality disturbance, and of course is found only in a young individual. However, there exists a very characteristic difference between the typical sociopath and the juvenile delinquent. To determine whether a young person has a sociopathic personality disturbance, we must find in him the symptoms commonly found in the adult psychopath. These have been described as: ingratiating attitude coupled with aggressive, uninhibited behavior, unconcern with the consequences of his acts, inability to learn from experience and a characteristic loss of evaluation of time. Nielsen(4) writes: "The incapacity for application of the concept of time is the pathognomonic sign of psychopathic personality."

In the juvenile delinquent, however, one characteristic sign of the sociopath is missing. The JD is by no means submissive or ingratiating, and this distinguishes him from the practically untreatable adult sociopath.

In the idiopathic JD we find a definite masochistic tendency. The youngsters cut themselves, burn themselves, and, in the mildest cases, tattoo themselves. They will tattoo crosses or other symbols on the forehead, arm etc., indicating an unsatisfied need for self-assertion and distinction. These self-punishing tendencies also manifest themselves in acting-out behavior which will inevitably lead to punishment by the law or by parents. The mildest form of this category is habitual running away which may also be recognized as restlessness, another attribute of the disease. More serious manifestations are theft, burglary, arson, destructive acts, violence and occasionally murder. (Only recently a 15 year old boy committed a senseless murder of two Mexican laborers whom he had not even known.)

Restlessness is associated with the disease. Girls want to get married at the age of 14, and boys are induced to join them. (Recently a party of six youngsters took a car and went to the Mexican border town of Nogales to get married.)

Other symptoms of the disorder are spreeks with alcohol or narcotics, paint sniffing, sexual

Original Articles

promiscuity in girls, etc. All these actions and symptoms do not make sense to parents and teachers. They do not make sense unless one understands that they are typical of the mental disorder we are trying to identify.

Therapy: Any successful treatment of JD must be based upon a correct diagnosis. The more serious the underlying disorder, the more easily it is recognized. Thus, psychotic youngsters create no problem of diagnosis nor is there much disagreement upon the therapeutic approach. It is also comparatively easy to recognize a convulsive disorder although in many cases electrical tracings reveal nothing. In the more difficult cases the underlying disorder is masked and all we see is aggressive behavior, aimed directly or indirectly against the self or the environment.

The available methods of treatment include milieu therapy (including psychotherapy), somatic therapies and drug therapy.

Milieu therapy is the most widely recommended approach. It has met with limited success because of the lack of facilities and because apparently more than psychotherapy is needed to deal with the disorder successfully.

Since it is recognized that some of the manifestations of JD are based on restlessness and antagonistic (untamed) behavior, an attempt has been made in a number of cases to apply the other two modalities as well. Both restlessness and untamed, aggressive behavior, should theoretically respond to anxiety-reducing electrotherapy as well as drug therapy. Electro-convulsive therapy as commonly used does not reduce anxiety and restlessness, but nonconvulsive diencephalic stimulation is effective in this respect and has been successfully applied. (5). For chemotherapy Librium* (chlordiazepoxide hydrochloride) was chosen. The taming effects of this agent on monkeys and other animals were demonstrated during the initial pharmacological studies (6) to be of a quite singular kind, erasing hostility and aggression without producing ataxia. In my own experience I found Librium a potent psychosedative, especially useful in refractory cases of obsessive-compulsive behavior. (7). Other psychiatrists with a scattering of young patients have reported it as useful in relieving their emotional disturbance. A full report on pediatric use of Librium has come recently from England. In a letter to *The Lancet*, A. C. R. Skynner (10)

comments that Librium is "proving of unique value in forms of neurotic disorder associated with covert or repressed hostility and aggression.

In my recent work with juvenile delinquents it has proved most valuable in combination with the other two treatment methods. In a dosage range of 20 to 50 mgm. daily in divided doses it produces cooperativeness and a feeling of well-being due to release of tension. It thereby becomes a helpful means toward increasing the efficiency of milieu therapy.

The combined approach of Librium with milieu therapy, and sometimes with diencephalic electrostimulation as well, was used in approximately 50 cases, almost invariably with beneficial results.* It also made the patients cooperative toward electrotherapy if this seemed indicated.

The following summarized case histories are offered for consideration:

L.W.

The patient was a 14 1/2 year old attractive girl who had been detained by the Police in the Juvenile Detention Home upon complaints of her parents because of a number of anti-social actions. She had robbed her grandparents house and stolen their car and then had an accident which she outran. She was truant in school, participating in parties of dubious company and while all this was going on her parents found a note in her possession discussing various methods of committing suicide.

The family lives in good circumstances but there existed a great antagonism between the father and daughter and it was therefore felt that at least a temporary separation from the home would be desirable. This, however, was postponed because of the approaching Christmas vacation which seemed to be a more favorable time. In the meantime the patient was given Librium 10 mgs t.i.d. When Christmas came around two weeks later she was so much improved that she then consented to anesthesia and sodium pentothal interviews which she had previously refused. Actually she never had to be hospitalized and improved consistently. Her grades in school came up and she finished her school year without any further difficulty.

M. L.

This patient was a 16 year old boy, an adopted child, who had been a bed wetter up to the age of 11 or 12. This boy had been in frequent dif-

*Trademark of Hoffman-La Roche Inc., Nutley, New Jersey.

*This number has increased consistently since this article was written.

ficulty with the police because of moving traffic violations, had been rebellious, and abusive in the house, was truant although he was in his senior year in school and had to be temporarily suspended from school twice. He was driving a pickup truck in spite of having lost his driver's license. During the interview there were no signs of any psychotic reaction noticed and I had the impression that he would submit to constructive counseling. He was also given 25 mgs of Librium b.i.d. From then on the difficulties diminished, he had no more trouble, he gave up his driving and did not even resent that the parents took the car away from him since he had no license anyway. He stopped being truant, his grades came up and he graduated the same year.

J. S.

This was a 15 year old girl, the daughter of a court reporter. She had been in considerable difficulty since the death of her father 18 months earlier. She was truant from school and finally quit school altogether, ran away from home, did not want to stay at home at all and was generally rebellious. Her mother, a very understanding and sedate woman, was desperate.

There was no sign of psychotic reaction but some depression was obvious in addition to the rebelliousness. At that time the mother contacted me the patient was in the detention home. We arranged that she be given 10 mgs of Librium three times a day and after one week she submitted to hospitalization and then received three diencephalic nonconvulsive stimulations. She was kept on Librium. The girl improved considerably, started helping her mother in her typing, stayed at home, except when permitted to go out, gradually became more pleasant and cooperative. She later met a boy two years her senior and, with the consent of the parents, married him. She is now pregnant and the marriage seems to be going well.

L. L.

The patient was a 8½ year old boy who was in the Juvenile Detention Home because he had set fire to a building and poured paint on the neighbor's fences. The boy was seen in the office only once and it was determined that he was a child of average intelligence and not psychotic. He was given 5 mgs. of Librium b.i.d. while in detention and later after his return home. His mother was seen several months later and reported that the boy was doing well.

J. J.

This patient was an 18 year old girl for whom several appointments had been made which she did not want to keep. She had difficulty at home, had quit high school, stayed out at night and was openly rebellious at home. In addition she had stolen money from her father's shirt pocket. She was seen only once a month for three consecutive times and during that time took 10 mgs. of Librium three times a day. There were no more difficulties at home. The girl did not return to school because she had missed too much but she stated that she was going to take a summer course and in the meantime she started working in a drug store with regular hours and returned home after work.

J. J.

This patient was a 14 year old boy who at that time was in the 7th grade. The reason for this was that he did not go to school regularly, refused to learn, ran away from home, and hid out in alleys or ditches. He was the son of divorced, but well-to-do parents and after he had difficulties in his father's home, who had remarried, he was sent to a military school. There, he stole money, (significantly he stole one dollar from a billboard when he always had enough pocket money). He was suspended and then an attempt was made for him to live with his mother. There again he could not adjust, did not go to school and was about to flunk the 7th grade for the third time. 10 mgs. of Librium were prescribed and in order to ascertain that this rebellious child would take the medication, he was placed under observation in a private hospital. There he was observed at one time to have a blackout spell with subsequent rebellious behavior but an electroencephalogram was entirely negative. In addition to Librium, he had three nonconvulsive diencephalic stimulations and then was released. He adjusted well at home with his mother and finished his school year. However, unfortunately this wealthy family then felt that they should send the boy to a specialized school where he received analytic supervision and treatment and because of the orientation of that school Librium was discontinued. The boy did well for six months but recently has again been in difficulties, broke windows in drug stores on purpose, broke into a cabinet, stole acid and threw it on parked cars damaging the paint, and so forth.

It would be interesting to see what would happen if a chance could be obtained to place

Original Articles

him on medication again.

J. N.

This patient when first seen was 24 years old and in jail for assault and kidnaping with intent to molest a woman. The parents reported that the boy had been troubled for the last five years and that he was troubled the first time when he joined the Navy but received an undesirable discharge because of snatching a woman's purse. It was interesting to hear his own report about this incident when he stated that he felt like touching the woman's breast but then, beset by fears, he took the purse instead.

He had spent some time in the state hospital where he was observed but found not psychotic. The incident for which he was arrested concerned a woman that he had forced at knife point to drive out on the desert where, according to him, she consented voluntarily to sexual relations. This according to the patient, was the first time in his life he had had intercourse, however, the woman never pressed charges against him. Since this turned out so well, he committed a similar act a few weeks later but this time the woman talked him out of it, promised him a job, persuaded him to come to her house where she engaged him in a conversation with her husband and in the meantime she called the police.

Since most of his actions were in the nature of compulsive behavior, he was tried on Librium after he was released from jail on probation and is apparently making an excellent adjustment. He has found a girl friend, whom he intends to marry, and has carried on a natural relationship with her for several months now. He has found a job. He is being seen at monthly intervals and he is in a good mood. For the last two months he has quit taking any medication, (The patient found himself in difficulty again one month later, after having been three months without medication.)

J. P.

This 17 year old boy was a junior in high school and making poor grades. He had a long history of anti-social behavior, dating back over several years. At the age of 10 he was accused of vandalism, when he was 15 and 16 he had difficulties with the police six times because of running away, breaking curfew and purse snatching.

During the initial examination no psychotic manifestations were noted, but he admitted to getting angry easily and going into rages.

It was elicited from the parents that the boy had suffered an acute attack of nonparalytic poliomyelitis with temperatures of 105 and above when he was 8 years old. When I first saw him he was detained and would have been confined to an industrial school. This, however, did not seem to be very desirable because of the company of other psychopathic individuals. His parents were willing and able to help him and he received several nonconvulsive treatments as well as Librium 25 mgs. b.i.d. The boy has given up his anti-social behavior entirely. He is now working in a grocery store and intends to go to summer school to finish his high school.

R. B.

This patient is a 14 year old freshman in high school who has been in difficulty because he broke into a neighbor's house, had been found window peeping, and on several occasions has stolen female underwear and burned or soiled it symbolically expressing his resentment against the female sex. This was understandable in this particular case because a great antagonism existed between the boy's mother and him, although the woman made a sincere attempt to control her feelings and outwardly appeared to be quite concerned. This boy showed some manifestations reminiscent of a possible beginning of a schizophrenic reaction and psychological testings also corroborates this. However, he was not psychotic at the examination or at any time during the interview. He received three diencephalic nonconvulsive treatments and is taking Librium 25 mgs. in the evening. He has shown gradual improvement and for a number of months now has had no difficulties with his family nor with the juvenile authorities. He also quit wetting his bed.

The foregoing are examples of juvenile delinquents who have been helped by combined therapy with Librium, nonconvulsive diencephalic stimulation and psychotherapy. Many other patients have been treated by this technique. It should be mentioned that the files include a number of patients who were bed-wetters and have been cured of this difficulty, usually after one to two weeks on medication.

SUMMARY

The symptomatology and therapy of juvenile delinquency has been briefly discussed. A distinction has been made between cases which result from functional or organic psychiatric disorders and those cases in which such underlying

ing causes cannot be found. Since the latter usually show characteristic symptoms, i.e., a combination of self destructive and sociopathic behavior and since the etiology is obscure, the term "idiopathic juvenile delinquency" is suggested for this type of illness.

A concerted approach by different methods has been attempted in these cases with good results. This consists of a combination of treatments including drug therapy, electrotherapy and psychotherapy. This combined treatment was carried out on a temporally overlapping basis in the order named. The taming effect of chlordiazepoxide (Librium) has been found useful in rendering the individual accessible to psy-

chotherapy and willing to receive electrotherapy if this was indicated. A number of brief case histories exemplifying the results thus obtained are presented.

REFERENCES

1. Editorial — Criminality in the Service of Civilization, Arch. Criminal Psychodynamics 4: 231, Spring 1961.
2. Roche, P. Q.: The Criminal Mind, New York Farrar, Strauss and Cudahy, 1958, p. 29.
3. Noyes, R. and Kolb, L. C.: Modern Clinical Psychiatry, 5th ed., Philadelphia, W. B. Saunders Co., 1958, p. 551.
4. Nielsen, J. M. and Thompson, G. N.: The Engrammes of Psychiatry, St. Louis, Mo., Charles C. Thomas, 1947, p. 180.
5. Breitner, C.: Localized electric stimulation of the diencephalon Dis. Nerv. Syst. 18:7, July 1957.
6. Randall, L. O.: Pharmacology of methaminodiazepoxide, Dis. Nerv. Syst. 21:7, Nov. 1959.
7. Breitner, C.: Drug therapy in obsessional states and other psychiatric problems, Dis. Nerv. Syst. 21:31, Nov. 1959.
8. Pignataro, F. P.: Clinical experience with Librium in private psychiatric practice, Clin. Med. 7:1143, June 1960.
9. Kelley, J. W. and Gisvold, D. I.: The use of MMPI in the evaluation of Librium, Colo. GP 2:3, Aug. 1960.
10. Skynner, A. C. R.: Effects of chlordiazepoxide, Lancet 1: 1110, May 20, 1961.

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

ADLER — TEXTBOOK OF OPHTHALMOLOGY

Concentrates on the ophthalmic problems of the non-specialist — stressing diagnosis, treatment and indications that call for a specialist.

MAJOR AND DELP — PHYSICAL DIAGNOSIS

Offers step-by-step procedures for examining every area of the body by inspection, palpation, percussion and auscultation.

REID — TEXTBOOK OF OBSTETRICS

Gives you not only a clear picture of normal pregnancy and labor, but sound insight as well into the medical complications that may arise.

Congenital Tracheoesophageal Fistula Without Esophageal Atresia

John A. Garibpy, M.D.

Carl J. Impellitier, M.D.

Congenital tracheoesophageal fistula without esophageal atresia is a relatively rare finding — the authors present the clinical course of such a congenital anomaly and describe its surgical management which was executed quite successfully.

THIS communication concerns itself with a series of events common to the newborn, precariously masking an extremely rare congenital anomaly, namely, tracheoesophageal fistula of the "H" type.

Prior to 1939 there had not yet evolved a satisfactory technique for the correction of the anomaly. In that year, Ladd (1) and Leven (2) independently concerned themselves with a multiple stage surgical approach consisting of an extrapleural closure of the fistula, gastrostomy and marsupialization of the proximal cervical esophagus. Restoration of esophageal continuity was performed antethoracically as a final stage.

The first successful primary esophageal anastomosis with repair was performed by Dr. Cameron Haight, March 14, 1941. Shortly thereafter this technique was adapted with gratifying results by Gross, Ladd and Swenson.

It is not the purpose of this paper to review the problem of tracheoesophageal fistula and one's attention is called to the classic and authoritative review of this subject presented by Dr. Haight. (3) It is, however, interesting to note that in 259 cases of esophageal atresia, as reported by Gross, only four cases of fistula without esophageal obstruction were observed. It is without presumption, therefore, that we present the following case report.

On August 26, 1959, a seven pound, eleven ounce male infant was delivered at full term. There were no immediate post-natal complications. Oral suction was performed and spontaneous respirations ensued without episodes of either cyanosis or distress. In the following forty-eight hours, however, there was considerable regurgitation of thick tenacious material aggravated by coughing, respiratory distress and brief episodes of cyanosis.

On August 29, 1959, auscultation revealed for the first time scattered rhonchi over the chest posteriorly. These findings were corroborated by chest X-ray of the infant on that date. An aspiration pneumonitis was felt to be responsible for these episodes of distress and the infant was placed in an atmosphere of humidified oxygen and treated with antimicrobials. Both clinical and X-ray improvement in the next forty-eight hours encouraged the return to oral formula feedings. Periods of cyanosis following regurgitation made gavage feedings mandatory.

The continuity of the esophagus, which lent itself well to intubation and feedings, successfully masked the true nature of this problem.

In view of these events, the esophagus was studied by Lipiodol swallow and a fistula was demonstrable under fluoroscopic observation with the patient in the supine and prone positions. Fig. 1.

Rochester, New York.
Phoenix, Arizona.

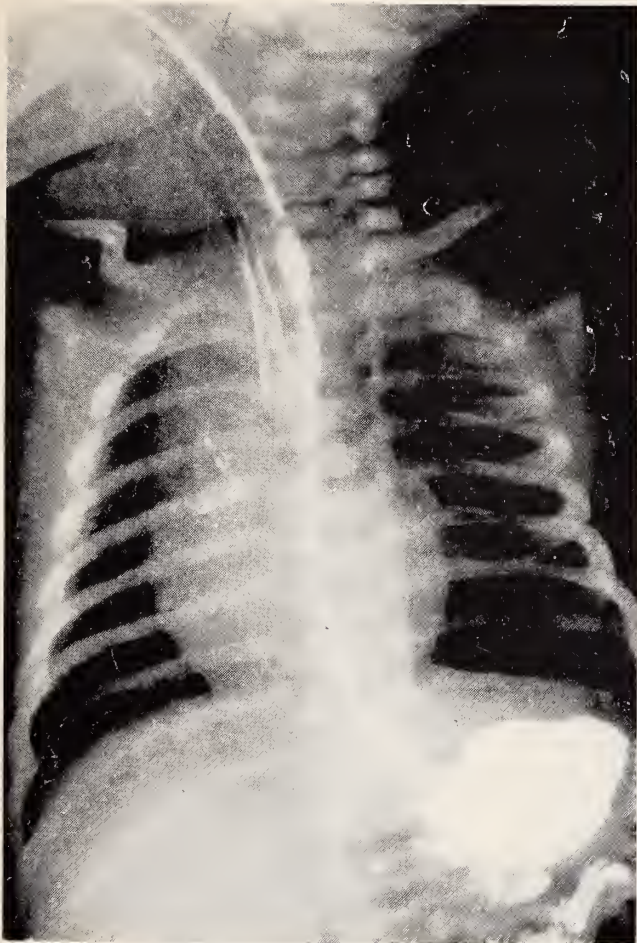


Fig. 1 — Pre-operation appearance of the chest x-ray with lipiodol swallow. Fistula is at the level of the second chondrosternal junction. Feeding tube is in place.

Under endotracheal control following ether induction, a standard right parascapular transpleural approach to the right hemithorax was made. Longitudinal dissection of the mediastinal

pleura facilitated by ligation and division of the azygos vein exposed the esophagus at the level of the fistula. The esophagus was dissected free of its surrounding adventitial structures and the fistula identified in its communication with the posterior membranous portion of the trachea.

The division of this fistula and closure of the resulting defects by 5-0 interrupted arterial silk sutures in two layers was performed. The mediastinal pleura was advanced over the esophagus to lie between the two structures. The thorax was closed in layers following insertion of a No. 18 Koraseal thoracic underwater seal tube.

Intravenous fluid therapy was maintained throughout the early post-operation period and gavage feedings were resumed in 10 c.c. volumes hourly after forty-eight hours. These feedings were then changed to a prepared formula and on the sixth post-operation day oral feedings in amounts up to two ounces were begun without event. On the tenth post operation day the patient was discharged weighing seven pounds, twelve ounces.

The problem of undelayed diagnosis of esophageal fistula without atresia in the newborn is presented.

REFERENCES

1. Ladd, W. E.: The Surgical Treatment of Esophageal Atresia and Tracheoesophageal Fistulas, New England J. Med. 230: 625-637, 1944.
2. Leven, N. L.: Congenital Atresia of the Esophagus with Tracheoesophageal Fistula: Report of Successful Extrapleural Ligation of Fistulous Communication and Cervical Exophagostomy, J. Thoracic Surg. 10: 648-657, 1941.
3. Haight, C.: Some observations on Esophageal Atresias and Tracheoesophageal Fistulas of Congenital Origin, J. Thoracic Surg. 34: 141-172, 1957.

LEGISLATIVE STRAIT JACKETS IN MEDICINE

Some of the suggestions (for "regulating" the prescription drug industry) could lead to such legislative strait jackets that the practicing physician would have no flexibility for individual judgment for his patients. More and more, medicine seems to be becoming a challenge to decide what not to do rather than what to do. If the trend continues the average doctor may worry more about how to extricate himself from a case with minimum personal risk than how to treat the sick person for maximum patient benefit. — Austin Smith, M.D., President, Pharmaceutical Manufacturers Association, to State Officers' Conference of American Academy of General Practice.

Cerebral Arterio-Venous Fistula

A CASE REPORT

Edward H. Bregman, M.D.

Dean Nichols, M.D.

Robert P. Mason, M.D.

George T. Hoffmann, M.D.

The authors present a well-documented, beautifully illustrated report of a case of cerebral arterio-venous communication. Once again, the value of the method of opacifying the cerebral circulation to the X-ray, developed by the late Egas Moniz, is demonstrated to be an outstanding aid to the neurosurgeon.

- 1658 Wepfer gave excellent cerebral hemorrhage description in his book on apoplexy and is credited by some for describing vessels of the base of the brain, two decades after to be called the "Circle of Willis."
- 1664 Thomas Willis first described the "Circle of Willis" in his "Cerebri Anatome."
- 1757 William Hunter saw an A-V aneurysm in the arm, reported it in 1762.
- 1800 Gilbert Blane reported first English record of an intracranial aneurysm of carotid in cavernous sinus.
- 1809 (May 23) Benjamin Travers ligated left common carotid for pulsating exophthalmos (carotid-cavernous fistula) and was first to do so.
- 1854 Luschka first described angioma of the brain.
- 1875 Hutchinson made postmortem confirmation of the diagnosis of an aneurysm made clinically eleven years before the patient's death — probably the first reported case of such an antemortem diagnosis.
- 1887 Eppinger first suggested that certain aneurysms are of embryonic origin at the site of defects in the tunica media of the arteries and that these breaches are inborn or congenital defects.
- 1895 Steinheil first to report A-V aneurysm of the brain — one hundred and thirty-eight years after William Hunter's reported A-V aneurysm of the arm.
- 1919 Knauer punctured internal carotid artery to inject arsphenamine in the treatment of general paresis.
- 1927 Egaz Moniz, a Portuguese neurologist of Lisbon, introduced cerebral angiography using 70 per cent solution of strontium bromide.
- 1931 Moniz accidentally succeeded in obtaining the first cerebral phlebogram.
- 1932 Olivecrona removed an A-V aneurysm from the posterior fossa. King described open puncture of the vertebral artery. March 31, 1932, Hamby did first successful intracranial ligation of the internal carotid artery.
- 1934 Dandy isolated a carotid-cavernous (A-V) fistula.
- 1936 Loman and Myerson (U.S.A.) described percutaneous carotid arteriography.
- 1937 Dandy cured an intracranial aneurysm by clipping its neck.
- 1940 Takabaski described percutaneous vertebral artery arteriography.
- 1941 Dyes described method for simultaneous AP and lateral X-ray of the skull.

Drs. Bregman, Nichols and Mason are with the Department of Radiology, Good Samaritan Hospital, Phoenix, Arizona.

Dr. Hoffmann is a Neurosurgeon, 2021 N. Central Avenue, Phoenix, Arizona.

Radiological Considerations

Plain X-rays may show anomalous blood sup-

ply to the skull or calcification associated with the underlying vascular anomaly of the cortex.

Pneumonencephalography — focal atrophy, and, bizarre projecting deformity within the ventricular system in some cases.

Ninety per cent of all saccular aneurysms and all A-V aneurysms supplied by the anterior and middle cerebral arteries will be visualized on carotid injection.

Intracranial Bleeding

Intracranial angiomas are the cause of subarachnoid hemorrhage in up to 10 per cent of reported cases. Intracranial hemorrhage accounts for 25 per cent of cerebro-vascular lesions found in postmortem examinations.

Arteriovenous Malformation

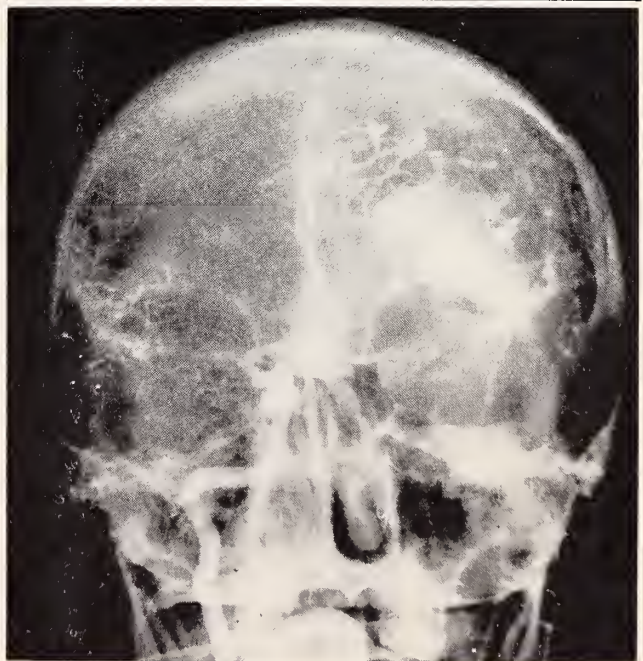
Mortality 8.7 to 40 per cent medically treated; 15 per cent of surviving cases having progressive neurological deficit; 65 per cent have convulsions, usually able to be controlled on medications; 25 per cent have focal Jacksonian seizures; 20 per cent of cases have headache as the main complaint; bleeding incidence in 39 per cent of cases with 20 per cent having subarachnoid hemorrhage as their initial feature. Carotid ligation on same side is said by some to offer 33 per cent cure rate (others believe it never should be done). Excision leaves almost 100 per cent neurological deficit, but may in selected cases be an almost cure. Surgical mortality is about 10 per cent. Irradiation does not have a place in treatment.

THE DILEMMA: (How to cure the A-V malformation without making the patient a neurological cripple.

E.E.M.: A 42 year old white female was admitted 8-14-61 to the Good Samaritan Hospital in a semi-comatose state, transferred from Luke Air Force Base Hospital. The day previous she had a sudden onset of nausea and severe abdominal cramps, and when seen in their emergency room she was prostrate and vomited small quantities of yellowish material. Immediate physical showed an acutely ill individual, semi-comatose with no localizing neurological signs. Laboratory studies at that time were within normal limits. However, shortly in the Luke Air Force Hospital she began to show nuchal rigidity, although she could turn her head from one side to the other. She was still semi-comatose and thrashed about in bed. A spinal puncture showed a pressure of 310 mms. of water with a frankly bloody fluid. The Luke Air Force Base diagnosis was suba-

chnoid hemorrhage possibly due to an aneurysm in the Circle of Willis. When admitted to Good Samaritan Hospital she showed essentially the same clinical picture. There had been a history of some vague numbness in the hands but which side was not identified at time of admission. There was still some nuchal rigidity. Precise neurological examination was not too effective due to patient's inability to cooperate and no definite localizing neurological signs were found. Laboratory studies, including blood chemistry, were essentially within normal limits. Plain films of the skull showed accentuated venous markings. In the past history, this patient gave a story of a subarachnoid hemorrhage syndrome in November 1947. A cerebral arteriogram was not done at that time however.

A bilateral carotid arteriogram was performed at Good Samaritan Hospital on 8-16-61. On the right internal carotid injection there was seen to be a normal distribution of the branches of the internal carotid. There was rapid transit of the dye to the contralateral side with normal filling of the left anterior cerebral artery, and there was seen to be an accumulation of dye in the mid parietal region on the left in the AP view. (Fig. 1). In the lateral view which was



AP right internal carotid injection.

FIGURE 1

taken simultaneously, the vascular accumulation was seen to lie posteriorly and it was essentially fed by the left middle cerebral artery and its branches. (Fig. 2). The left internal carotid arterial injection showed rapid passage of the dye



Lateral right internal carotid injection.
FIGURE 2

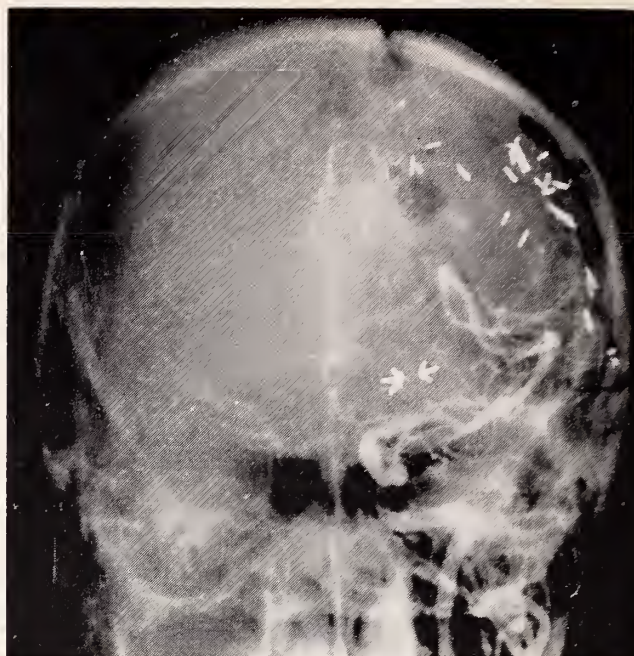


Fig. 7 Post-operative AP left internal injection.
FIGURE 7

to the arterio-venous anomaly in the left posterior parietal region. The transit from the right was so rapid that the left anterior cerebral vessel failed to fill. Again it was noted that the main feeder was apparently from the left middle cerebral arterial branch. (Figs. 3, 4 and 5). The arteriogram showed normal venous filling except the drainage from the malformation and is not reproduced in this article. The diagnosis was an arterio-venous fistula of the branches of the posterior portion of the left middle cerebral artery.

The surgery was done by Dr. George T. Hoffmann on August 29, 1961, and the following are his findings: "On exposure of the cortex, there were multiple branchings of the middle cerebral artery beyond the angular gyrus and the most impressive point was that at the anastomotic vein of Trolard. The blood in this was a rose pink color and on occlusion of one of the multiple branching vessels of the middle cerebral artery, the blood in the anastomotic vein immediately became a normal blue color. The terminal branches of the middle cerebral artery going toward the vertex were very tortuous and thickened in character and the veins could be seen to fill and empty, mixing arterial and venous blood over the angiomatic area immediately below the level of the parietal boss. Coming medially from this, was evidence of atrophy of the gyrus of the superior posterior portion of the parietal area, and also the inferior portion in the

association and stereognostic centers. The multiple tangled branches were noted to dip inside the depth of the brain and on clipping of multiple sites of the arterial feedings, the veins were noted to become markedly smaller. An interesting phenomenon was that on any compression of the arteries, they would remain in spasm and become smaller. No attempt was made to enter into the depth of the mass. On retraction of the brain and visualization medially, it was noted that there was at least one gyrus medial to the



Fig. 8 Post-operative lateral left internal carotid injection.
FIGURE 8

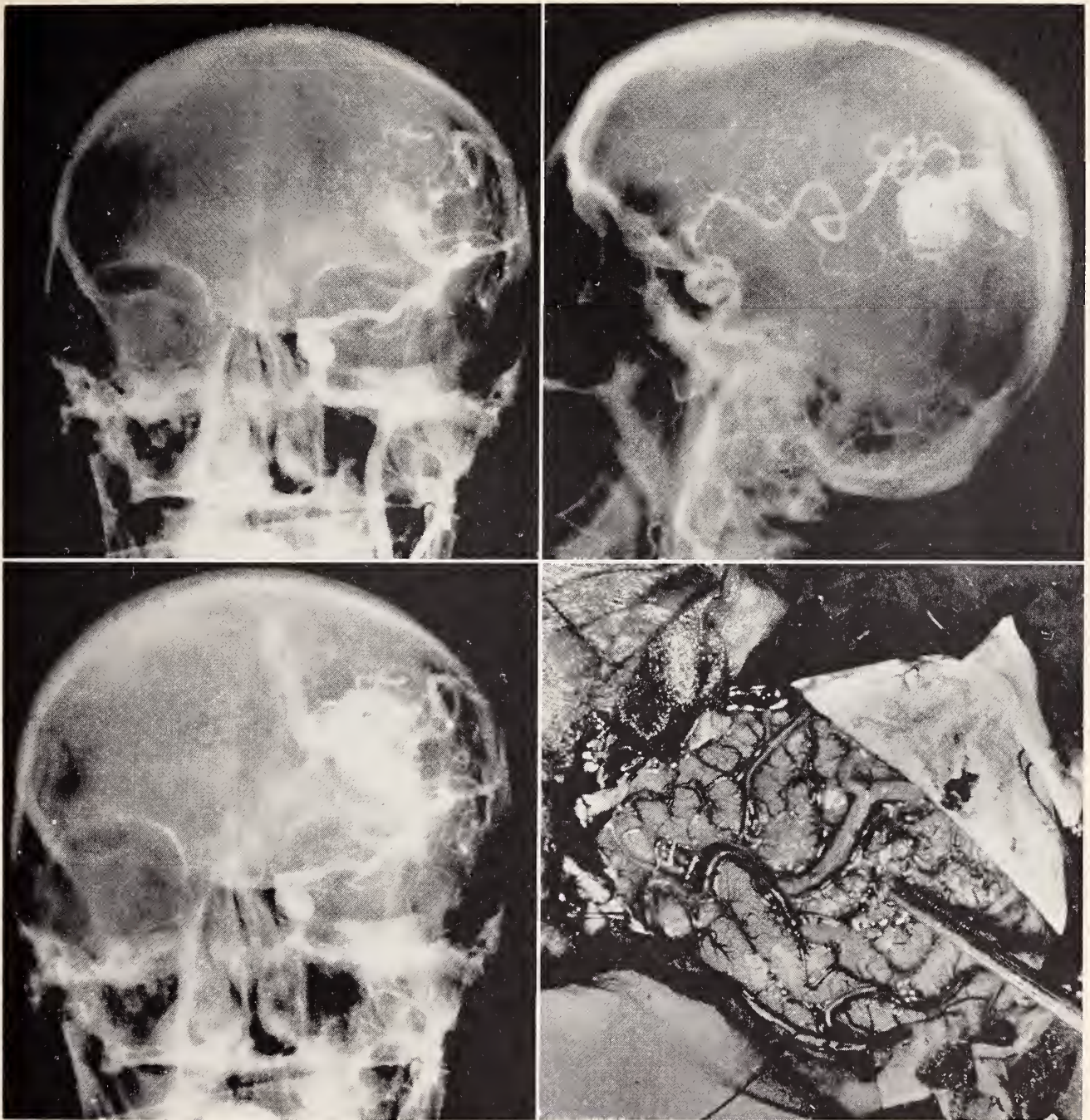


Fig. 3 (upper left) AP left internal carotid injection. Fig. 4 (lower left) AP left internal carotid injection — slightly later. Fig. 5 (upper right) Lateral left internal carotid injection. Fig. 6 (lower right) Appearance of lesion at surgery.

FIGURES 3, 4, 5, 6

anastomotic tangle which appeared to be smaller than normal, but the branchings were not particularly abnormal. There was a very large, thin-walled serpiginous venous structure (Fig. 6) which, though it softened, did not completely disappear on clipping of the middle cerebral artery, and it was felt that this was being fed, probably by a deep branch of the posterior cerebral artery, and no attempt was made to further seek this out in the dominant hemisphere."

The post-operative course was not remarkable and on 9-7-61, a left internal carotid arteriogram

was performed. On the AP view at this time was noted filling of the anterior cerebral vessel and in the previously described region, there was some filling of blood vessels but not to the same marked degree as seen previously, and with careful inspection here was seen to be a feeder from the posterior cerebral artery on both the AP and lateral views, (Figs. 7 and 8 arrows).

The remaining stay in the hospital was without incident and the patient was discharged on 9-15-61 to be followed in the office as an out-patient.

Value Of Radiation Therapy In Breast Cancer

Robert J. Johnson, M.D.

Batley states: "Haagensen and Stout have figures to show that radical mastectomy is the treatment of choice and that radiotherapy is of no value. McWhirter feels from his figures that simple mastectomy with postoperative X-ray is best. Nohrman presents figures suggesting that preoperative irradiation is preferable. Adair speaking of preoperative irradiation stated that 'it is costly in human life' and Taylor speaking of McWhirter's proposals said that 'it is terribly deplorable that such a retrogressive heresy should be proposed'."

THERE is no uniformity of opinion regarding the value of radiation therapy in this disease. It has some unquestioned palliative value and some debatable value in conjunction with surgery. It is not an alternative to surgery for operable lesions.

Any historical type of breast cancer will respond to intensive irradiation but may not necessarily be cured by it. Adenocarcinoma of the breast is a relatively radioresistant tumor, but due to its fair accessibility, it is amenable to treatment. There are those who feel that the primary is more radiosensitive than the local metastases, and those who hold the opposite view, but good proof for either view is lacking.

If Haagensen's criteria of operability are adhered to, clinical stages I and II will come to surgery. If a triple needle biopsy is done, i.e., breast, supraclavicular node, and internal mammary nodes (second to third to first interspaces), the operable group will drop from about 75 per cent to about 50 per cent. In this operable group, those with no microscopic evidence of axillary metastases should probably not receive any post-operative radiotherapy, as it has been shown that only about 8 - 13 per cent of these will have positive internal mammary nodes. If on the other hand, the axillary nodes are positive, the inci-

dence of positive internal mammary nodes rises to 32 - 55 per cent, (1, 2) and post-operative irradiation of the internal mammary and supraclavicular areas is recommended.

The increase of recurrence in the axilla after a careful dissection is so low that this area need not be treated unless the nodes were so large or fixed to underlying structures that tumor may have been left.

Whether the skin flaps should be treated or not is more debatable, as a large area has to be included in the treatment field, and the recurrence rate in the skin may not be sufficiently lowered by a dose that can be tolerated to justify the treatment. If operability has been misjudged and it is likely that tumor has been left behind, it would seem indicated to treat the skin and chest wall.

In those cases inoperable by Haagensen's criteria but without distant metastases, the clinical stage III's, a simple mastectomy is recommended whenever the surgeon feels he can excise the breast without incising the tumor tissue. This is then followed by intensive radiotherapy to the chest wall and the axillary, mediastinal and supraclavicular areas. If the breast cannot be removed for some reason, it should also be treated.

For clinical stage IV lesions, those with dis-

Read at the symposium on "Carcinoma of the Breast," at Tucson Medical Center, Tucson, Arizona, September 11, 1961.

tant metastases, local irradiation of the breast may be indicated to control the tumor mass and prevent or reduce ulceration, but the treatment of this stage is primarily hormonal and supportive. Local irradiation is indicated for painful bone lesions or those in areas susceptible to fracture, and also if a pathological fracture should occur. Skin nodules, brain metastases and pulmonary metastases may also be palliated by irradiation if the general condition of the patient permits.

One other possible role of radiotherapy in the management of this disease is that of castration when surgery is contraindicated. This is slower by several weeks and less sure than surgery; and as with surgical castration, it leaves significant estrogenic secretion by the adrenals afterwards. (3).

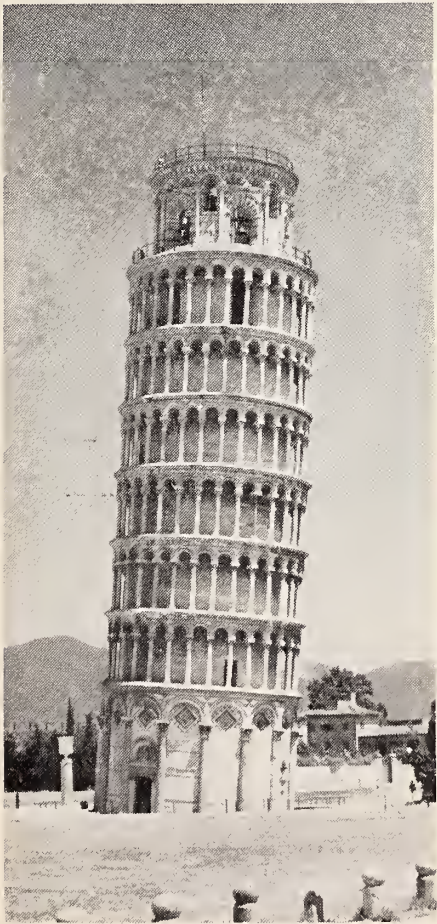
I have purposely avoided discussing two techniques, namely the McWhirter method of simple mastectomy plus radical irradiation of favorable lesions, (4) and the pre-operative irradiation of borderline cases to possibly make "more operable." (5). These may have some value in the management of the disease, but they have not

been definitely proved of value, and they are not generally accepted.

Finally, as to whether there is proof of the value of radiotherapy in this disease — it is not difficult to find series that "prove" that surgery plus radiotherapy is preferable to surgery alone in producing five year survivals, or the more significant ten year survivals. It is also possible to find statistics that "prove" the opposite. There is case selection, differences in technique, etc., in each series. There is good radiotherapy and poor radiotherapy, just as there is good and poor radical surgery. Also, the radiotherapist usually gets to see the more unfavorable and aggressive cancers. What is needed is a rigidly controlled series with random case distribution.

REFERENCES:

1. Andreassen et al: Lancet 1: 176-178, 1954.
2. Urban, J. A.: Radical Mastectomy With En Bloc in Continuity of the Internal Mammary Lymph Node Chain, Proceedings of the Third National Cancer Conference, Philadelphia, 1957, J. B. Lippincott Co., p. 164.
3. Diczfalusy, E., et al: Estrogen Excretion in Breast Cancer Patients Before and After Ovarian Irradiation and Oophorectomy, J. Clin. Endocrinol. 19: 1230-1244, October 1959.
4. McWhirter, R.: Simple Mastectomy and Radiotherapy in the Treatment of Breast Cancer, Brit. J. of Radiol. 28: 128-139, 1955.
5. Ash, et al: The Argument for Preoperative Radiation in the Treatment of Breast Cancer, Surg. Gynec. & Obst. 96: 509, 1953.
6. Batley, F.: The Problem of Evaluation of Cancer Therapy, J. Canad. A. Radiologists 4: 25-28, 1955.



When treatment for
IMPOTENCE
is indicated
ANDROID^{T.M.} tablets
ANDROGEN-THYROID-COMBINATION

in two convenient dosage forms

ANDROID

Each yellow tablet contains:
Methyl Testosterone2.5 mg.
Thyroid Ext. (1/6 gr.)10 mg.
Glutamic Acid50 mg.
Thiamine HCl10 mg.

ANDROID-H.P.
(High Potency)

Each orange tablet contains:
Methyl Testosterone5 mg.
Thyroid Ext. (1/2 gr.)30 mg.
Glutamic Acid50 mg.
Thiamine HCl10 mg.

INDICATIONS: Impotence in male.
AVERAGE DOSE: One tablet three times daily.
AVAILABLE: Bottles of 100 and 500 at your pharmacy.
CAUTION: Not to be used when testosterone is contra-indicated.
Federal law prohibits dispensing without prescription.

1. Methyl-Testosterone-Thyroid in the Treatment of Impotence, A. S. Titeff (Prepub. Report).
2. Thyroid-Androgen Relations, L. Hellman, et al., The Jrl. of Clin. Endocrinology and Metabolism, August 1959.

Write for samples and literature...

BROWN THE BROWN PHARMACEUTICAL COMPANY
2500 West Sixth Street, Los Angeles 57, California

for most every topical indication

brand Ointment

Broad-spectrum antibacterial action—plus the soothing anti-inflammatory, antipruritic benefits of hydrocortisone.

brand Antibiotic Ointment


brand Antibiotic Ointment

A basic antibiotic combination with proven effectiveness for the topical control of gram-positive and gram-negative organisms.

Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



There's nothing
like a vacation* for
easing stress-induced
smooth muscle spasm

*...nothing, that is,
except autonomic sedation with*

DONNATAL[®]

Natural belladonna alkaloids plus phenobarbital

*This one at Mirror Lake, Yosemite Park

Prescribed by more physicians
than any other antispasmodic

In each DONNATAL
Tablet, Capsule
or 5 cc. Elixir

0.1037 mg. hyoscyamine sulfate
0.0194 mg. atropine sulfate
0.0065 mg. hyoscine hydrobromide
16.2 mg. (1/4 gr.) phenobarbital

In each
DONNATAL
Extentab

0.3111 mg.
0.0582 mg.
0.0195 mg.
(3/4 gr.) 48.6 mg.

DONNATAL tablets • capsules • elixir

— for an easily adjusted t.i.d. or q.i.d. dosage regimen.

DONNATAL EXTENTABS[®]

— for day-long or night-long benefits on a single dose.

 A. H. ROBINS CO., INC. • Richmond, Virginia

effective skeletal

muscle relaxation



s each patient may require

for dramatic promptness: ROBAXIN INJECTABLE usually provides relaxation of painful spasm *in minutes*. Clinicians have reported that it is "effective in producing immediate relaxation,"⁷ and brings about "dramatic relief of pain and spasm" within 15 to 20 minutes.³

In each 10-cc ampul Methocarbamol (Robins) 1.0 Gm.

for prolonged use with safety: ROBAXIN TABLETS safely maintain relief of spasm *without drowsiness*. "The effect does not wax and wane,"⁴ and continued administration shows "no deleterious effect on normal muscle tone."⁶

In each white, scored tablet Methocarbamol (Robins) 0.5 Gm.

ROBAXIN®



Robaxin is methocarbamol (Robins) U. S. Pat. No. 2770649

for concurrent analgesia: ROBAXISAL TABLETS, combining ROBAXIN with aspirin, are useful in spasm-triggering states that are painful in themselves, or when pain is prominently associated with muscle spasm.

In each pink-and-white laminated tablet Methocarbamol (Robins) 400 mg.
Acetylsalicylic acid (5 gr.) 325 mg.

for concurrent analgesia plus sedation: ROBAXISAL-PH TABLETS, combining ROBAXIN with the sedative-reinforced analgesic PHENAPHEN®, are particularly helpful in giving relief to patients in whom such pain is accompanied by spasm-potentiating pain and apprehension.

In each green-and-white laminated tablet Acetylsalicylic acid (1¼ gr.) 81 mg.
Methocarbamol (Robins) 400 mg. Hyoscyamine sulfate 0.016 mg.
Phenacetin 97 mg. Phenobarbital (½ gr.) 8.1 mg.

ROBAXISAL®



References: 1. Carpenter, E. B.: South. M. J. 51:627, 1958. 2. Hudgins, A. P.: Clin. Med. 8:243, 1961. 3. Lamphier, T. A.: J. Abdomin. Surg. 3:55, 1961. 4. Levine, I. M.: Med. Clin. N. America 45:1017, 1961. 5. Meyers, G. B., and Urbach, J. R.: Penna. M. J. 64:876, 1961. 6. Perchuk, E., Weinreb, M., and Aksu, A.: Angiology 12:102, 1961. 7. Poppen, J. L., and Flanagan, M. E.: J.A.M.A. 171:298, 1959. 8. Schaubel, H. J.: Orthopedics 1:274, 1959. 9. Steigmann, F.: Am. J. Nursing 61:49, 1961.

A. H. ROBINS COMPANY, INC. • Richmond, Virginia



control the
two-headed
dragon of
pain & spasm

**"HIGH
THERAPEUTIC
EFFECT"**

A growing library of clinical reports on the use of ROBAXIN in painful skeletal muscle spasm continues to reaffirm its effectiveness, dependability, rapidity of action, and lack of significant side effects.

Some recent comments:

"...high therapeutic effect..."⁵

"...superior to other relaxants..."⁹

"...remarkably effective..."²

"...a high potential for prompt relief..."⁸

"...unusual freedom from toxicity..."¹

Theragran[®]

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesses who need therapeutic vitamin support. Each Theragran supplies the essential vitamins in truly therapeutic amounts:

Vitamin A	25,000 U.S.P. Units
Vitamin D	1,000 U.S.P. Units
Thiamine Mononitrate	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Vitamin C	200 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B ₁₂	5 mcg.

SQUIBB



Squibb Quality—the Priceless Ingredient

'Theragran'® is a Squibb trademark

“nutrition...present as a modifying or complicating factor in nearly every illness or disease state”¹

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases “Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease.”²

2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis “It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . .”³

3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.⁴ Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.⁵

4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases “Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult.”⁶

6. Overholser, W., and Fong, T. C. C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.⁷

7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.⁸ “Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes.”⁹

8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

**THE HOSPITAL BENEFIT ASSURANCE PLAN
GUARANTEED RENEWABLE
FOR LIFE**



THE H. B. A. LIFE INSURANCE COMPANY
A LEGAL RESERVE LIFE AND DISABILITY CAPITAL STOCK INSURANCE COMPANY
HOME OFFICE: FIRST STREET AT WILLETTA • PHOENIX, ARIZONA • ALpine 8-4888

DUKE R. GASKINS, M.D.
MEDICAL DIRECTOR

Re: King-Anderson Bill

Dear Doctor:

The King-Anderson Bill is in the house committee under consideration. This bill aside from being extremely costly to all is the first giant step toward socialized medicine. If this bill is passed it will have a direct influence on you.

Geo. E. Richardson, President of HBA LIFE, has just returned from an AMA meeting in Chicago on this very subject. It is a vital question to all of us . . . medical care for the aged.

The problem is not as great as some politicians want to make it. Older people can and do afford pre-payment plans as well as post-payment plans offered by many doctors. For those who need assistance, the new Kerr-Mills Act provides State Aid. Many feel that this will solve the problem without Federal intervention in the field of medicine.

I urge you to get behind your association and write to your congressmen and senators and express your feelings toward the King-Anderson Bill. If you receive non-committal answers from them, write them again and ask that they take a stand. Your interest in this bill can do much to make them aware how you and others feel. Talk with your patients about it, get them to write, for if passed, they will bear the burden of the bill through taxes.

We can and must care for the aged through free enterprise — not through Federal control which means socialized medicine.

Very truly yours,

Duke R. Gaskins, M.D.
Medical Director

Offices in:

First at Willetta
Phoenix, Arizona

456 N. Country Club Dr.
Mesa, Arizona

31 N. Tucson Blvd.
Tucson, Arizona

Clarence Edgar Yount, Jr. M.D.

President-elect, ARMA



C. E. Yount, Jr., M.D.

Dr. Clarence E. Yount, Jr., who at the Annual Meeting of ARMA this April will begin his duties as 71st President of the Association, is a native Arizonan. He was born December 7, 1905 in Prescott. His father was a practicing physician in that town, since his arrival in Arizona three years earlier and continuously thereafter for

nearly half a century. "Junior's" mother was the daughter of a physician, Dr. John Michael Criley, who first began practicing in Arizona in 1898.

After graduation from Prescott High School in 1924, Dr. Yount attended the University of Arizona for four years and in 1928 was graduated with the B.S. degree in Biology, minoring in Chemistry. That fall he matriculated at the Harvard University Medical School and completed the first two years of medical studies at that institution. During the next year he returned to the University of Arizona as a member of the faculty in the Department of Bacteriology. In 1931 he matriculated at the George Washington University School of Medicine where he completed the prescribed course of medical studies, graduating with the M.D. degree in 1934.

Following an internship at Gallinger Municipal Hospital, Washington, D.C., Dr. Yount returned to Prescott in the fall of 1935 to join his father in medical practice. He married his medical school classmate, Florence Hearne Brookhart, in June, 1936. Among the congratulatory messages following the birth of their son, John Edward Yount, on September 6, 1940 was one which began, "Greetings . . .," and the ten day father marched away. His own account of his military service follows:

"Inducted into Federal Service with Arizona National Guard 16 September, 1940 for a 'year of training.' Served as Battalion Surgeon from induction until November, 1941 when I became Regimental Surgeon of 158th Infantry (afterward 'The Bushmasters'). I thus occupied the same post with the same Regiment with which my father served on the Border in 1916 and during the early months of World War I. Alerted for overseas service three days after Pearl Harbor, we took off as a separate Combat Team for Panama in January, 1942. Remained in Panama the balance of 1942 and in January, 1943 sailed for S.W.P.A. via Australia. From Australia the R.C.T. went North to New Guinea, landing first at Port Moresby. I was surgeon of the "By-Product" Task Force, which took over Kiriwina Island in the Trobriands. On this job the lowly R.C.T. Surgeon — a Major — had to learn to speak softly when he bossed the chicken colonel who commanded the general hospital which joined us when all was secure on the Island.

"After 30 months overseas returned to the States and went back to Camp Barkeley, Texas

The President's Page

as instructor in Field Medicine and Surgery in M.A.C. Officer's School for training M.A.C.'s to act as Assistant Battalion Surgeons. Later, when this school was no longer needed, sent to Brooke Medical Center, Ft. Sam Houston, Texas, where I was Chief of Medical Service of the 5,000 bed Convalescent Hospital being established there. Discharged to terminal leave in October, 1945."

Following some refresher courses at the University of Wisconsin School of Medicine, Dr. Yount returned to private practice in Prescott in February, 1946. Over the busy years he has served his community and organized medicine faithfully and productively on many committees and in many important offices. He was Assistant County Physician for many years before and after his long tour of military service. In 1951 he became County Superintendent of Health and Prescott Health Officer. In 1940 he was President of Yavapai County Medical Society and ten years later was willing to assume the duties of Secretary-Treasurer of that Society. In October 1949 he succeeded his father as Treasurer of ARMA and continued in this office throughout the next ten years until his election to the position of Vice-President of ARMA in 1960. The following year he was elevated to the position of President-Elect of ARMA.

Dr. Yount lists his hobbies as horses and horsemanship, shop, photography, "gadgets," and the Army Reserve from which he was retired in July, 1960 after 35 years of enlisted and commissioned service. A review of his contributions and activities necessitates the addition of good citizenship to his list of hobbies.

Clarence L. Robbins, M.D.

For all YOUR DRUG needs-

Phone MAC
ALpin 4-2606
or
ALpin 2-1573
In Arizona Since 1920

FAST FREE DELIVERY

MACALPINE'S

THE *Rexall* STORE • 2303 N. 7th ST.

YOUR PROFESSIONAL GROUP ACCIDENT AND SICKNESS INSURANCE POLICY

Approved and Recommended by
Your Insurance Committee and
Board of Directors



A Program Designed For
The Members Of
**THE ARIZONA MEDICAL
ASSOCIATION, INC.**

By The
**NATIONAL CASUALTY COMPANY
OF DETROIT**



For Complete Information
CONTACT
CHARLES A. DELEEuw
3424 N. Central Ave. — AMherst 6-2403

PIMA COUNTY REPRESENTATIVE
RONALD DEITRICH
136 North Stone Avenue MAin 3-0583

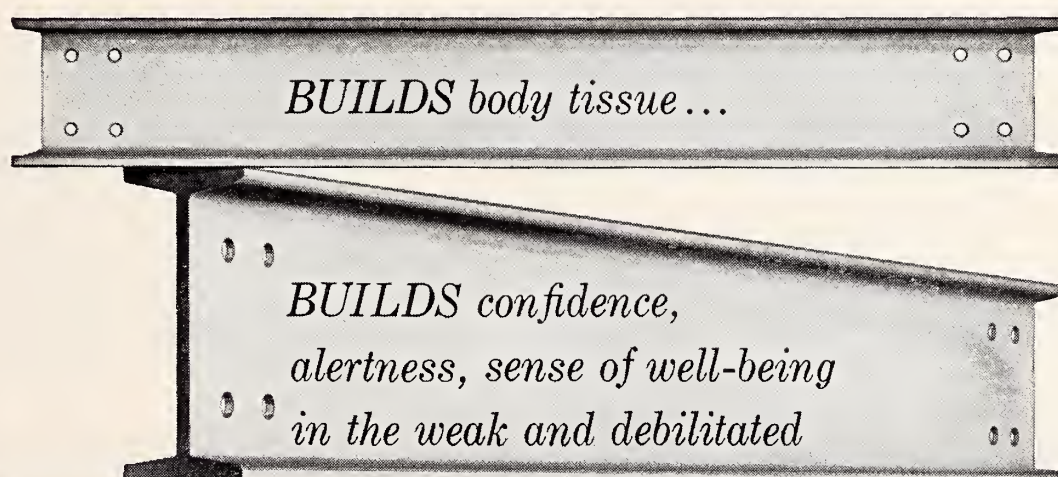
From Winthrop Laboratories—

A SIGNIFICANT NEW PHYSIOTONIC

to treat the *TOTAL* patient

WINSTROL®

BRAND OF STANOZOLOL



With *thirty* times the anabolic activity of methyltestosterone... and only *one-fourth* its undesirable androgenicity*—well tolerated WINSTROL therapy results in:

- Marked improvement in appetite
- Measurable weight gain
- Notable increase in vigor, strength and sense of well-being

for ... the tired, weak, irritable catabolic patient unable to overcome daily lethargy

... the elderly person with asthenia, inanition, anorexia or osteoporosis

... the patient with malignant, chronic or infectious disease

... the listless, undernourished child

... the adolescent with persistent underweight

... the patient on prolonged steroid therapy—to counteract catabolic effects

With WINSTROL, patients look better, feel stronger—because they are stronger.

Dosage: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

*animal data

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

Winthrop LABORATORIES
1450 Broadway • New York 18, N. Y.

1671M



**No Salt Free Diet is
Complete Without...**

Crystal Distal

STEAM DISTILLED WATER

**Scientifically Processed
and Mineral Free**

The purest water available.

At your store
or call

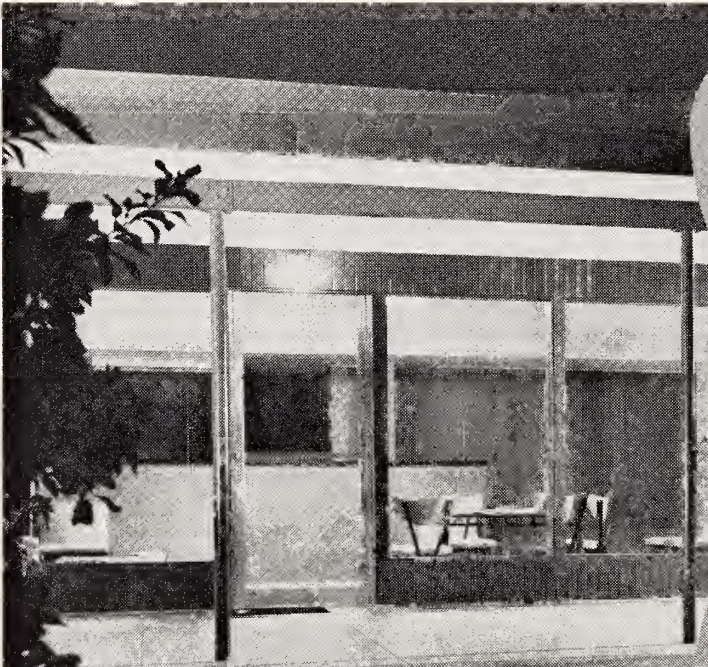
AM 4-0221

for
FREE
Home Delivery



**CRYSTAL
Bottled
WATERS**

Naturally Better for You



**CAMELBACK
PROFESSIONAL
BUILDING**

ROBERT L. BEAL, M.D.
OTTO L. BENDHEIM, M.D.
PAUL M. BINDELGLAS, M.D.
HAL J. BREEN, M.D.
LEE S. COHN, M.D.
T. RICHARD GREGORY, M.D.
WILLIAM B. HAEUSSLER, M.D.
DERALD G. MAY, M.D.
HAROLD E. McNEELY, Ph.D.
ROBERT C. SHAPIRO, M.D.
WILLIS L. STRACHAN, M.D.
JOHN R. ZELL, M.D.

**5051 NORTH 34th STREET
PHOENIX 18, ARIZONA
AM 4-4111**

*general psychiatry and neurology
child psychiatry
psychoanalysis
clinical psychology
psychiatric social work
and family counselling*

a
major achievement
in the convenience
of intramuscular
antibiotic therapy

Terramycin[®] *Isoject[™]*

oxytetracycline for intramuscular injection, ready
to use in sterile syringe with sharp, sterile needle
— all in one integrated, entirely disposable unit

completely
sealed to prevent syringe-
transmitted hepatitis/
ready-to-use/tamper-proof/
disposable...and
surprisingly economical



Science for the world's well-being[®]





a
major achievement
in the convenience
of intramuscular
antibiotic therapy

Terramycin[®] *Isoject[™]*

IN BRIEF

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. As with all I.M. preparations, injection should be made within the body of a relatively large muscle. Care should always be taken to avoid injection into a major nerve or its surrounding sheath. For complete dosage, administration, and precaution information, read package insert before using. Terramycin Intramuscular Solution contains 2% (W/V) Xylocaine.*

More detailed professional information available on request.

*Xylocaine[®] is the registered trademark of Astra Pharmaceutical Products, Inc., for its brand of lidocaine.

provides the benefits of Terramycin Intramuscular Solution: rapid effectiveness against a broad range of pathogens; rapid, wide distribution in body tissues and fluids; excellent toleration

plus ... all the advantages of the ISOJECT unit:

convenient completely self-contained/no intricate assembly/no chance of lost parts

sterile and completely disposable prevents syringe-transmitted hepatitis

economical compares very favorably in cost with less convenient and practical forms — and reduces likelihood of breakage and waste

tamper-proof unit is safely sealed

presently available ISOJECT forms:

Terramycin[®] Intramuscular Solution — 100 and 250 mg.

Vistaril[®] Parenteral Solution — 25 and 50 mg.

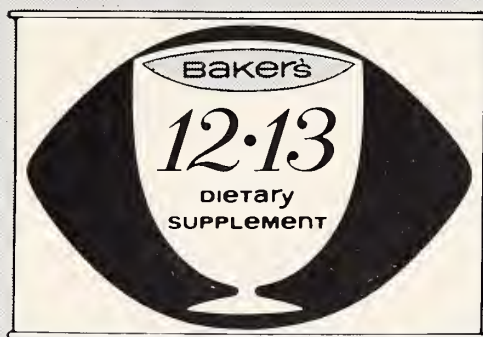
Streptomycin Sulfate Solution — 1 Gm.

NEW!

Baker's

12·13

DIETARY SUPPLEMENT



ABATES "UNCERTAIN NUTRITION"

New BAKER'S 12·13, a combination of essential nutrients, offers an effective aid for management of short-term or long-term supplementation in a wide variety of nutritional problems.

BAKER'S 12·13 is indicated for:

- geriatric patients
- pregnancy and lactation
- underweight and malnourishment
- pre- and post-surgical patients
- convalescence
- alcoholics
- ulcer patients
- dieting patients
- patients unable to take solid foods

Baker's 12·13 is an economical, balanced composite of all known dietary essentials: protein—fat—carbohydrate—minerals—vitamins.

When "nutrition is uncertain" . . . prescribe BAKER'S 12·13 for your patients.

COMPOSITION AND DIRECTIONS

Skim milk	Sucrose	Niacinamide
Non-fat milk solids	beta carotene	Tocopherols
Corn oil	Vitamin D ₃	Pyridoxine
Soy oil	Ascorbic acid	hydrochloride
Soy flour	Thiamine	Iron ammonium citrate
	hydrochloride	Artificial flavor
Approximate analysis:	Protein (N x 6.38)	30.1%
	Fat (Cholesterol-free)	10.4%
	Carbohydrate (by difference)	50.1%
	Ash	5.4%
	Moisture	4.0%

DIRECTIONS: Stir 4 heaping table-spoonfuls of 12·13 (2 oz. powder) into 8 oz. of water in a glass or bowl. Each delicious serving provides:

		% of R.D.A.*
Calories	230	10%
Protein	17 Gm.	25%
Fat	5.7 Gm.	**
Carbohydrate	27.5 Gm.	**
Calcium	475 mg.	60%
Vitamin A	1250 units	25%
Vitamin D	100 units	25%
Vitamin E	2.5 units	**
Vitamin C	35 mg.	50%
Thiamine	0.6 mg.	50%
Niacin	5.0 mg.	50%
Riboflavin	0.7 mg.	40%
Vitamin B ₆	2.0 mg.	**
Iron	5.0 mg.	50%

*Recommended Daily Allowances, National Research Council.

**Not established.

Baker's 12·13 is available in attractively packaged 12 oz. cans. Sold only in drug stores.


THE BAKER LABORATORIES, INC.

Quality Nutritional Products—for over a quarter of a century
CLEVELAND 15, OHIO

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!

Cotazym-B supplies

12  **TIMES GREATER FAT-SPLITTING LIPASE (STEAPSIN) ACTIVITY THAN PANCREATIN N.F.¹**

7  **TIMES GREATER STARCH-DIGESTANT AMYLASE (AMYLOPSIN) ACTIVITY²**

5  **TIMES GREATER PROTEIN-DIGESTANT PROTEINASE (TRYPSIN) ACTIVITY²**

- PLUS BILE SALTS TO AID IN DIGESTION OF FAT, AND CELLULASE TO AID IN DIGESTION OF FIBROUS VEGETABLES



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"³—is a concentrated pancreatic enzyme preparation developed by Organon.⁴ It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.^{1,4,5,6,7,8} COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.



REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: *South. M.J.* 53:1051, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keffer, E. D., *Am. J. Gastro.* 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: *Chicago Medicine*, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: *N. Y. St. J. Med.* 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym-B

Lipancreatin Bile Salts Cellulase

71st ANNUAL STATE MEETING

The annual state medical meeting — scorned by some, and attended by a minority. The place for deliberations and development of unity in the medical fraternity.

Too frequently, this session is criticized by those who fail to take an active part in this meeting or any of the functions of their County or State Medical Societies.

In any intelligent and independent thinking group there will be differences of opinion. This is not undesirable. But let us approach these discussions with a readiness to make allowances, to consider and only then accept or reject that opinion which differs from our own. Deliberation will be necessary, but unity must be established. Only the development of dissension within the medical society will permit an outside group to be able to force drastic changes upon it.

Not only must we establish a unified policy but it must be a progressive one. Programs as

developed by the Maricopa County Medical Society with the Sabin vaccine, and now followed by Pima County, are excellent. Steps as these will cast the physician in the light he desires.

Within our own Society let us establish budgetary policies that are realistic. Let us permit an organization of the Central Office by the Executive Secretary that is harmonious and efficient. Then having established this organization, Committee Chairmen, Officers and Delegates must operate in that structure. Each is not a king to order as he may desire.

On a legislative level let us promote a Medical Practice Act with an aim to always improve the medical treatment to the patient. Do not permit it to be a selfish program to exclude the qualified, but do not permit the establishment of a law that makes Arizona the haven for the cultist, poorly qualified, or the physician who has not improved his qualifications with the passing of years.

ARIZONA MEDICINE

ARIZONA MEDICINE

Darwin W. Neubauer, M.D.Editor
Margaret McMahonSecretary to the Editor
720 N. Country Club Rd., Tucson, Arizona

ASSISTANT EDITORS

Robert CarpenterArizona Medical Association Reports
Richard L. Dexter, M.D.
Joe E. Ehrlich, M.D.
Mayer Hyman, M.D.
Clarence L. Robbins, M.D.
Preston J. Taylor, M.D.Original Articles
Juan E. Fonseca, M.D.
Augusto Ortiz, M.D.Medical Society of the
Byron BrowderUnited States and Mexico
Lindsay E. Beaton, M.D.
R. Lee Foster, M.D.
William B. McGrath, M.D.
Leslie B. Smith, M.D.Editorial Section
Howell S. Randolph, M.D.In Memoriam
Andre J. Bruwer, M.D.Reprints
John W. Kennedy, M.D.
Paul J. Matte, Jr., M.D.Historical Section

ASSOCIATE EDITORS

Charles W. Elkins, M.D.Neurosurgery
A. K. Hansen, M.D.Ophthalmology
Louis G. Jekel, M.D.Dermatology
Robert Lacock, M.D.Ob-Gyn.
C. Thomas Read, M.D.Chest Surgery
Wallace A. Reed, M.D.Medical Economics
Gerd Schloss, M.D.Pathology
Paul L. Singer, M.D.Genito-Urinary
Hugh H. Smith, M.D.Public Health
Alvin L. Swenson, M.D.Orthopedics
William G. Ure, M.D.Tuberculosis
Roger F. White, M.D.Pediatrics

Editorials of *Arizona Medicine* are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

ADVERTISING AND SUBSCRIPTION OFFICES

Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

"The material in this journal is not copyrighted. We would like to ask that anyone using material from it note the previous publication in *ARIZONA MEDICINE*."

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in *ARIZONA MEDICINE*. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

Let us discourage the hospitals from the unnecessary expenditures that unduly raise health costs. They must be prevented from duplicating expensive equipment that is used only rarely, that becomes readily obsolete, and is an unreasonable drain on their budget. They must be made to realize that while we seek the ideal care for our patients, this does not necessarily mean a TV set in every room. They must be made to accept their full share of responsibility for rising health costs.

Darwin W. Neubauer, M.D.

UNIFIED BLUE SHIELD

The plan of national Blue Shield to make effective a unified fee policy as soon as possible leaves no time for polemics about the morality of fee fixing. The job immediately at hand for physicians is to establish a fee schedule that is fair and realistic. In the report reprinted from *Medical World News* a Blue Shield plan director is quoted, "There will have to be some alterations in our local allowances; we can't pay more for a procedure under a national plan than a local plan." It is quite likely that the reverse will be equally unfeasible and a dollar-to-unit value will soon be standard for the nation. An escalator clause would seem imperative and it is reasonable because it is realistic.

Clarence L. Robbins, M.D.

LETTERS TO THE EDITOR

Feb. 13, 1962

Dear Dr. Neubauer:

In view of the record, it seems to me that the proponents of welfare statism, and especially those in the Department of Health, Education and Welfare, should look to those who have set the example for the past 13 years.

Specifically, I am referring to the 13 year record that Great Britain has to demonstrate the efficacy of state controlled medical and hospital care. The *British Medical Journal* of December 1949 states that "Medicine in Britain is in a mess".

A member of the House of Lords and three British economists, Jewkes, Lees, and Hutton, all have labeled and described the present med-

ical chaos in Britain as "a pretty ghastly, awful picture." Dr. J. B. Seale, who has been writing authoritatively on this subject for many years, attributes the weakness and failure of the system mainly to a shortage of physicians.

His citation revealing the mass exodus from the National Health Service is estimated to run as high as 600 physicians per year. The reason and obvious cause of this chaotic disgust with their government medicine on the part of the physician is due mainly to overwork and loss of medical freedom.

It is indeed strange that our administration in the United States is now pressing for government medical control at the time Great Britain is beginning to publicize the failure of their form of government medicine.

Are we on the brink of viewing the supposition that the British doctors are about to regain their freedom at the same time the American doctors and their patients will be losing theirs?

Fraternally,

D. B. GILBERT, M.D.

* * *

February 19, 1962

Editor
Arizona Medicine

I couldn't agree with anything more wholeheartedly than I agree with Dr. Neubauer's editorial on "Excellence". Economy should be the last (with one exception) of the criteria used for the selection of a site for a medical school (which is all that has been discussed so far). Nevertheless, if all other criteria are equal, as a poor taxpayer I cannot encourage the wanton, unnecessary spending of tax moneys.

The only criterion which, in my opinion, should rank lower than economy is, unfortunately, the only one used by the Volker Committee. As the report itself says, regardless of the excellence of the University which 'mothers' the medical school, its facilities cannot be used by the medical school. All of these facilities are already in use by other schools of the University. Whether the medical school is on the campus (as at UCLA) or off (as at Illinois or Northwestern) is of no importance. Regardless of its location with regard to the main campus, there is little if any mixing between the faculty and student body of the medical school and that of

the parent University.

Before spending umpteen millions of dollars for the establishment of a medical school, Arizona needs an impartial study of *all* of the criteria of importance in the selection of a location. There is no one factor of such overwhelming importance that it can be regarded as a sole criterion, as was admittedly done by the Volker Committee.

Before choosing between Phoenix and Tucson (the only eligible sites), we need to evaluate many factors. Among these are 1) the availability of clinical material (patients), 2) the proximity of other medical (not undergraduate) institutions, 3) the number of doctors available who are capable of filling the lesser posts of

instructors and assistant professors and 4) teaching programs already in existence. When these and other factors (including economy and the caliber of the parent university) are all evaluated, then a sensible decision can be reached.

If this decision indicates that the medical school should be in Phoenix, then and only then the state can take advantage of the savings offered by the use of the Maricopa County Hospital as a teaching hospital for the Medical School. If, in years to come, the state has enough money, then a University Hospital could be built if it seems desirable at the time.

Yours truly,

CARL A. HOLMES, M.D.

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

ADLER — TEXTBOOK ON OPHTHALMOLOGY

Concentrates on the ophthalmic problems of the non-specialist — stressing diagnosis, treatment and indications that call for a specialist.

MAJOR AND DELP — PHYSICAL DIAGNOSIS

Offers step-by-step procedures for examining every area of the body by inspection, palpation, percussion and auscultation.

REID — TEXTBOOK OF OBSTETRICS

Gives you not only a clear picture of normal pregnancy and labor, but sound insight as well into the medical complications that may arise.

*The cigarette
that made the filter famous!*



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

**Your taste buds will tell you why
you'll feel better about smoking
with the taste of Kent.**

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.



a relaxed mind in a relaxed body

with

Trancopal[®]
Brand of chlormezanone

effective TRANQUILIZER ■ potent MUSCLE RELAXANT

When you prescribe Trancopal you can see how this "tranquilaxant" speedily helps the anxious patient. It quiets his psyche — and this quieting helps relax tense muscles. It eases muscle spasm — and this easing helps put the mind at rest.

DeNyse¹ notes that the effect of Trancopal as a quieting agent ". . . may play a part in the skeletal muscle relaxing results obtained." Gruenberg² used Trancopal to treat patients with musculoskeletal disorders, and commented: "In addition to relieving spasm and pain, with subsequent improvement in movement and function, Trancopal reduced restlessness and irritability in a number of patients."

Trancopal has an unsurpassed record of safety. Very few side effects occur with Trancopal. You may see them in only about two out of a hundred patients, and they will almost always be mild.

Available: 200 mg. Caplets[®] (green colored, scored), bottles of 100
100 mg. Caplets (peach colored, scored), bottles of 100

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily;
children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Before prescribing, consult Winthrop's literature for additional information
about dosage, possible side effects and contraindications.

References: 1. DeNyse, D. L. : M. Times 87:1512 (Nov.) 1959.
2. Gruenberg, F.: Current Therap. Res. 2:1 (Jan.) 1960.

Winthrop LABORATORIES New York 18, N.Y.

1649M

CONSISTENTLY SUCCESSFUL IN RELIEVING DRY, ITCHY SKIN

Sardo®

BATH OIL

STUDY 1 Spoor, H. J.: N. Y.
State J.M. 58:3292, 1958.

satisfactory results in **88%** of cases

comments: "In practically every instance... the patients experienced relief from dryness and pruritus."

STUDY 2 Lubowe, I. I.:
Western Med. 1:45, 1960.

satisfactory results in **94%** of cases

comments: Sardo "reduced inflammation, itching, irritation, and other discomfort..."

STUDY 3 Weissberg, G.:
Clin. Med. 7:1161, 1960.

satisfactory results in **91%** of cases

comments: "Scaling disappeared, and... the skin became softer and smoother..." with Sardo.

INDICATIONS

- eczematoid dermatitis
- atopic dermatitis
- senile pruritus
- contact dermatitis
- nummular dermatitis
- neurodermatitis
- soap dermatitis
- ichthyosis



SARDO IN THE BATH releases millions of microfine water-miscible globules* which act to (a) lubricate and soften skin, (b) replenish natural emollient oil, (c) prevent excessive evaporation of essential moisture.

Patients appreciate pleasant, convenient SARDO.

Non-sticky, non-sensitizing, economical. Bottles of 4, 8 and 16 oz.

for samples and literature, please write...

SARDEAU, INC. 75 East 55th Street, New York 22, N. Y.*Patent Pending, T.M. © 1961



PROFESSIONAL CORPORATION LEGISLATION

The Twenty-fifth Legislature of the State of Arizona in its Second Regular Session enacted Senate Bill No. 185, an Act relating to Professional Corporations. The Act carried an emergency clause and on receiving approval by signature of Governor Paul J. Fannin on March 20, 1962, became law in the State of Arizona. Following is a copy of Title 10, ARS Chapter 3, Article 1, § 10-901 to 10-909, inclusive.

CHAPTER 3

SENATE BILL NO. 185

AN ACT

RELATING TO PROFESSIONAL CORPORATIONS; AUTHORIZING THE FORMATION OF PROFESSIONAL CORPORATIONS; PROVIDING FOR A TITLE; DEFINITIONS; EXCLUSIONS; APPLICABILITY OF GENERAL CORPORATION LAW; PRESERVING PROFESSIONAL RELATIONSHIP AND RESPONSIBILITY; PROVIDING FOR A CORPORATE NAME AND THE INVESTMENT OF FUNDS; SETTING FORTH THE NATURE OF THE CORPORATE ACTIVITY; PROVIDING FOR THE NUMBER OF INCORPORATORS, CONTINUITY OF LIFE, CENTRALIZED MANAGEMENT, CORPORATE LIABILITY AND TRANSFERABILITY OF INTEREST; PRESERVING THE DISCIPLINARY POWERS OF BOARDS, AND AMENDING TITLE 10, ARIZONA REVISED STATUTES, BY ADDING CHAPTER 3, ARTICLE 1, SECTIONS 10-901 TO 10-909, INCLUSIVE.

Be it enacted by the Legislature of the State of Arizona:

Section 1. Title 10, Arizona Revised Statutes, is amended by adding chapter 3, article 1, sections 10-901 to 10-909, inclusive, to read:

CHAPTER 3

PROFESSIONAL CORPORATIONS

ARTICLE 1. GENERAL PROVISIONS

10-901. *Title*

This act may be cited as the "Professional Corporation Act."

10-902. *Definitions*

In this chapter, unless the context otherwise requires:

1. "Ancillary personnel" means such persons acting in their customary capacities, employed by those rendering a professional service who:

(a) Are not licensed to engage in the category of professional service for which a professional corporation was formed, and

(b) Work at the direction or under the supervision of those who are so licensed, and

(c) Do not hold themselves out to the public generally as being authorized to engage in the practice of the profession for which the corporation is licensed, and

(d) Are not prohibited by the board regulating the category of professional service rendered by the corporation from being so employed.

2. "Board" means the agency of this state having jurisdiction to grant a license to render the category of professional service for which a professional corporation has been organized.

3. "License" includes a license, certificate of registration or any other evidence of the satisfaction of the requirements of this state for the practice of a professional service.

4. "Professional corporation" means a corporation organized under this chapter solely for the purpose of rendering one category of professional service and which has as its shareholders, directors, officers, agents and employees only individuals who by this state are duly licensed to render that category of professional service.

5. "Professional service" means any personal service which requires as a condition precedent to the rendering thereof the obtaining of a license and which prior to the effective date of this chapter by reason of law could not be performed by a corporation.

10-903. *Exclusions from chapter*

A. This chapter shall not apply to any persons within this state who prior to the passage of this chapter were permitted to render personal services by means of a corporation, nor to any corporations organized by them.

B. Nothing contained in this chapter shall alter the right of persons licensed to engage in the rendering of a professional service from so doing in any other business form permitted them by law.

C. Nothing contained in this chapter shall be construed to prohibit a professional corporation from employing ancillary personnel.

10-904. *Application of general corporation law*

Professional corporations shall be governed

Topics of Current Medical Interest

by the laws applicable to other Arizona private corporations organized for profit except insofar as such laws shall be limited or enlarged by or contrary to the provisions of this chapter, in any of which events this chapter shall be controlling.

10-905. *Professional relationship and responsibility*

Nothing in this chapter shall be construed to alter any law applicable to the relationship between persons furnishing and receiving professional service, including but not limited to liability arising therefrom, and the shareholders of the corporation shall be and remain jointly and severally responsible for such liability.

10-906. *Corporate name; investment of funds*

A. A professional corporation may adopt a name consisting of the full or last name of one or more of its shareholders or, if not otherwise prohibited by law or the canons of ethics of the profession concerned, may adopt a fictitious name.

B. The corporate name of a professional corporation shall end with any one of the following designations: "Professional Corporation", "P.C.", "Limited", "Ltd.", "Professional Association", "P.A.", "Chartered".

C. A professional corporation may in its own name invest its funds in real estate, mortgages, stocks, bonds or any other type of investment, and may own real or personal property necessary or appropriate for rendering its professional service.

10-907. *Nature of corporate activity*

A. A professional corporation may only be organized for the purpose and may only engage in the rendering of one category of professional service.

B. A professional corporation may render professional service only through shareholders, directors, officers, agents and employees who are themselves duly licensed in that category of professional service.

C. No person who is not licensed in that category of professional service shall have any part in the ownership, management or control of the corporation, nor may any proxy to vote any shares of such corporation be given to a person who is not so licensed.

10-908. *Number of incorporators; continuity of life; centralized management; corporate liability; transferability of interest*

A professional corporation shall:

1. Be formed by two or more persons licensed to render the same category of professional service with the object and purpose of engaging in the practice of such profession and rendering such professional service and dividing the gains therefrom.

2. Be organized for a stated number of years, not in excess of twenty-five, subject to renewal pursuant to section 10-151.

3. Cease to exist only upon the first to happen of the following events:

(a) The death of the last surviving shareholder.

(b) Voluntary or involuntary dissolution pursuant to the laws governing the same for Arizona private corporations organized for profit.

4. Be governed by a board of directors elected by the shareholders and represented by officers elected by the board of directors, and, if desired, by an executive committee elected by the board of directors.

5. Provide that the private property of shareholders be exempt from liability for corporate debts except as set forth in section 10.905.

6. Permit shares to be transferable to persons duly licensed to perform the same category of professional service as that for which the professional corporation was organized, or to the professional corporation itself provided that this shall not be construed to prohibit such further lawful restrictions thereon upon which the shareholders may agree.

10-909. *Disciplinary powers of boards; transfer of shares*

A. No professional corporation may do any act which is prohibited to be done by persons licensed to practice the profession which the professional corporation is organized to render.

B. Each shareholder, director, officer, agent and employee of a professional corporation shall be subject to the rules and regulations adopted by and the disciplinary powers of the board regulating the category of professional service rendered by the professional corporation.

C. If any shareholder, director, officer, agent or employee of a professional corporation becomes legally disqualified to render the category of professional service for which the professional corporation was organized, the professional corporation shall forthwith terminate his employment.

D. Within ninety days following the death,

insanity, bankruptcy, retirement, resignation, expulsion or other legal disqualification of a shareholder, all of the shares of such shareholder shall be transferred to or acquired by persons qualified to own such shares or by the corporation. Until such transfer is effected such shares shall not be entitled to be voted. Either in its articles of incorporation or its bylaws, the corporation shall fix the price or method of computing the same together with the schedule of payment therefor, for acquiring such shares, in the event the shares are not otherwise acquired within said ninety days by persons qualified to own the same.

Sec. 2. *Emergency*

To preserve the public peace, health and safety it is necessary that this act become immediately operative. It is therefore declared to be an emergency measure, to take effect as provided by law.

Approved by the Governor — March 20, 1962

Filed in the Office of the Secretary of State —

March 20, 1962

ARIZONA POISONING CONTROL INFORMATION CENTER ISONIAZID POISONING

During the past 8 years, isoniazid has been widely used for the treatment of tuberculosis. Recent studies conducted by the U. S. Public Health Service have revealed that isoniazid is effective in preventing complications of primary tuberculosis in infants and young children.(1) The American Academy of Pediatric's Committee on the Control of Infectious Diseases recommends that all children under 4 years of age who react to tuberculin receive a daily oral dose of isoniazid for 1 year.(2) In view of this new medical application for this chemical agent, it can be anticipated that isoniazid will become more prevalent in homes and that the incidence of accidental poisoning involving the drug will increase. Hence, it is timely to consider the potential toxic effects and treatment of isoniazid poisoning. Four case histories of children under 5 years of age who ingested isoniazid in amounts ranging from 900 mg. to 1800 mg. have been reported in this country.(3-5) The toxic effects displayed by these children involved mainly the central nervous system. The symptoms included

facial twitching; blinking of the eyes; clonic movements of the fingers; intermittent, generalized, tonic and clonic convulsions; unconsciousness following seizure; cyanosis; and transient pulse irregularity.

Absorption of isoniazid is rapid and toxic symptoms may appear within 30 minutes after ingestion.(5) In the treatment of isoniazid poisoning it is important, initially, to look for signs of hyperexcitability, hyperreflexia, and impending convulsion and to postpone gastric lavage until these symptoms are controlled. Sodium phenobarbital administered intramuscularly is effective in controlling isoniazid-induced central nervous hyperexcitability including convulsions.(4-6) It is suggested that the convulsant activity of isoniazid is related to its ability to induce pyridoxine deficiency.(5,7) Consequently, this vitamin has been administered intravenously in the treatment of acute isoniazid poisoning. However, other investigators(6) have demonstrated in animals that pyridoxine does not completely antagonize the convulsant effect of isoniazid and they recommend sodium phenobarbital as the drug of choice for the control of isoniazid convulsions.

Oxygen therapy should also be included in the treatment procedure, when necessary, and the child's color should serve as an index for its use. Convulsions may be so severe that respiration is inhibited sufficiently to cause cyanosis, but respiratory depression can occur in the absence of seizures.(5) Intravenous infusion of fluids should be initiated soon after completion of gastric lavage. Medication, blood, or plasma may be administered by this route if indicated. As soon as the patient is able to take fluids by mouth, the intravenous fluids can be discontinued.(5)

Finally, in severe poisoning from isoniazid in which the victim fails to respond to the above therapy, exchange transfusion should be considered. Katz and Carver(3) performed an exchange transfusion with excellent results in a 19-month-old boy who was a victim of isoniazid intoxication. The poisoning was so severe that breathing had stopped and artificial respiration with continuous administration of oxygen was necessary. A total of 1100 ml of blood was used in the transfusion procedure which was carried out during a period of 1 hour and 50 minutes. By the time the exchange transfusion was completed the child was breathing spontaneously;

Topics of Current Medical Interest

he was fully awake and cried for his mother.

In view of the potential toxicity of isoniazid, parents should be warned of the potential dangers of this drug and instructed to keep this medication out of the reach of children. Pharmacists should dispense the drug in prescription vials featuring a safety cap.(8)

STATISTICS OF 119 POISONING CASES
IN ARIZONA DURING OCTOBER, 1961

AGE:	Per Cent	Number
Under 5 Years	59.0	70
6 to 15 years	4.2	5
16 to 30 years	15.9	19
31 to 45 years	11.7	14
Over 45 years	6.7	8
Not reported	2.5	3
NATURE OF INCIDENT:		
Accidental	61.3	73
Intentional	26.1	31
Other	12.6	15
TIME OF DAY:		
Between 6 a.m. and noon	31.1	37
Between noon and 6 p.m.	28.5	34
Between 6 p.m. and midnight	12.6	15
Between midnight and 6 a.m.	6.7	8
Not reported	21.0	25
OUTCOME:		
Recovery	50.4	60
Fatal	0.0	0
Unknown	49.5	59
CAUSATIVE AGENTS:		
Internal Medicines	Per Cent	Number
Aspirin	22.0	27
Other Analgesics	2.4	3
Barbiturates	4.8	6
Antihistamines	4.8	6
Laxatives	0.0	0
Cough Medicine	2.4	3
Tranquilizers	8.1	10
Others	7.3	9
Subtotal	51.8	64
External Medicines		
Liniment	2.4	3
Antiseptics	0.0	0
Others	0.8	1
Subtotal	3.2	4
Household Preparations		
Soaps, Detergents, etc.	0.0	0
Disinfectants	1.6	2
Bleach	7.0	8
Lye, corrosives, drain cleaners	1.6	2
Furniture and floor polish	0.8	1
Subtotal	11.0	13

Petroleum Distillates		
Kerosene	0.8	1
Gasoline	3.2	4
Others	1.6	2
Subtotal	5.6	7
Cosmetics	0.0	0
Pesticides		
Insecticides	4.8	6
Rodenticides	0.8	1
Others	0.0	0
Subtotal	5.6	7
Paints, Varnishes, Solvents, etc.	1.6	2
Plants	4.8	6
Miscellaneous	9.1	11
Unspecified	7.3	9
TOTAL	100.0	123*

*The total number of causative agents exceeds the actual number of poisoning cases since in certain individual poisoning incidents more than one agent was involved.

REFERENCES

1. Mount, F. W. and Ferebee, S. H., Preventive Effects of Isoniazid in the Treatment of Primary Tuberculosis in Children, *New Eng. J. Med.*, 265:713, 1961.

2. Committee of Section on Diseases of the Chest, Isoniazid Treatment for Tuberculosis Reactors, *Pediatrics*, 27:179, 1961.

3. Katz, B. F. and Carver, M. W., Acute Poisoning with Isoniazid Treated by Exchange Transfusion, *Pediatrics*, 18:72, 1956.

4. Livingston, S., Petersen, D., and Peck, J. L., Convulsive Reactors in a Two-year-old Child Following the Accidental Ingestion of an Overdose of Isoniazid, *Pediatrics*, 18:77, 1956.

5. Hyatt, H. W., Acute Poisoning From Overdose of Isoniazid, *Am. J. Dis. Children*, 102:106, 1961.

6. Reilly, R. H., Killam, K. F., Jenney, E. H., Marshall, E. H., Tausig, W. H., Apter, N. S. and Pfeiffer, C. C., Convulsant Effects of Isoniazid, *J. Am. Med. Assoc.*, 152:1317, 1953.

7. Williams, H. L. and Wiegand, R. G., Xanthurenic Acid Excretion and Possible Pyridoxine Deficiency Produced by Isonicotinic Acid Hydrazide and other Convulsant Hydrazides, *J. Pharmacol. Expt. Therap.*, 128:344, 1960.

8. News Bulletin No. 2, Arizona Poisoning Control Information Center, February, 1960.

Willis R. Brewer, Ph.D., Dean, College of Pharmacy, The University of Arizona, Tucson; Albert L. Picchioni, Ph.D., Pharmacologist and Director, Arizona Poisoning Control Program, The University of Arizona, Tucson, and Lincoln Chin, Ph.D., Pharmacologist, The University of Arizona, Tucson.

MENTAL HEALTH CLINIC
SOUTHERN ARIZONA

Launched only in November of 1961, the Southern Arizona Mental Health Clinic already has justified the confidence of the authorities and of the Tucsonans, members of the Pima County Assn. for Mental Health, whose efforts very largely brought the Clinic to fruition.

Designed for adults (over 18 years), citizens of Southern Arizona of limited family income,

the clinic is principally preventive in its approach. Evaluation and diagnosis predominate, although the Clinic is prepared to administer therapy to the extent of its capacity. Additionally, the Clinic will carry on a program of continued Professional Staff education and training, will give consultations to other public institutions, will make appropriate referrals and will undertake a program of public education through various media which is expected to include a series of articles on recognition of symptoms, family and environmental conduct in acceptance of patients or returnees from hospitals, with emphasis on the fact that mental illness is far from hopeless.

The Clinic uses a sliding scale of extremely nominal fees for continuous out-patient treatment and a set of diagnostic fees based on family income. Discretion is left with the Director in extreme cases. However, a maximum family yearly income of \$8400.00 is permitted for eligibility for treatment at the Clinic.

Through a one year grant of \$49,000.00 to the University of Arizona by the U. S. Public Health Service, a comprehensive research program utilizing techniques of psychiatry, psychology, anthropology, is made possible. Dr. Neil Bartlett of the University of Arizona is in executive charge of the research, while Dr. Arnold Meadow is administrator of the program.

The Arizona State Hospital has contributed \$25,000.00 from its funds for payment of certain salaries and equipment. The refurbishing and equipping of the plant, salaries of certain personnel, equipment and current running expenses of the Clinic were borne by the Pima Co. Assn. for Mental Health from contributions, volunteer help and the generosity of merchants and service clubs in Tucson.

Dr. Boris Zemsky of Tucson heads the Private Physicians' consulting staff.

The physical plant of the Clinic is located in the refurbished "Las Casitas" Motel at 3418 South 6th Avenue, Tucson, through a grant-in-use by the Max T. Heller Foundation. Six units and supplementary conference rooms permit consultations with patients, families and friends, not only by psychiatrists but as well by psychologists, anthropologists and psychiatric social workers.

While nationally this is not a new departure from the out-moded general confinement of men-

tally ill patients, it is the first step taken by a community in Arizona in providing more preventive psychiatric treatment to the general public unable to afford private care. While obviously limited in its capacity, requiring a very vigorous maintenance of schedule, the Clinic is an encouraging first step in the ultimate establishment of similar clinics throughout the State.

DESIRABLE AIM

The subsequent aim of establishing a day treatment center of limited patient capacity in conjunction with the clinic is desirable to provide a more comprehensive program which will enable patients to be observed and treated in a concentrated effort during the day when this is considered desirable. In such cases the patients will be allowed to return to their homes at night and on weekends, which should substantially reduce the number of cases requiring 24 hour a day hospitalization. The added advantages of maintaining closer family contact are obvious, and experience indicates this form of treatment is considerably less expensive than long-term custodial type hospitalization.

While Veterans Administration and certain other general hospitals have indicated the reservation of a limited number of beds for mentally ill patients, the trend is toward special, small-capacity psychiatric hospitals. These specialty hospitals permit the house staff more intimate contact with the patients and concentration of treatment efforts, and seem to offer the greatest possibilities in the prompt rehabilitation of the mentally ill. Experience in recent years has shown that patients respond more favorably under such conditions than when ministrations are undertaken in larger hospitals.

Robert J. Shearer, M.D., psychiatrist, and Director of all activities of the Clinic points out that despite the limitations of the present clinic in the matter of physical plant, professional personnel and hospital facilities, the "infant" is struggling encouragingly. It is his conviction that proof of effectiveness of early and preventive treatment on an out-patient basis will make clear the course of expanded facilities and the extension throughout the state of such community clinics.

Dr. Shearer further stated that treatment of this sort could be expected to reduce substantially the number of admissions to the State

Topics of Current Medical Interest

Hospital and its associated expense. Experience in other states has been that early concentrated out-patient treatment can be as little as one-third to one-fifth of the cost of maintaining in-patients confined to State Hospitals.

Mental Health, its treatment and its costs have for some years been of great concern to Governors of many states. In the Governors' Conference devoted specifically to this problem, recognition has been given to the inadequacy of older and extremely costly custodial methods. A number of states have taken cognizance of Minnesota's activities in this field. In that state a chain of 17 community health centers, supported by Federal, State and local matching mon-

ies, give a wide range of treatment, training, consultive and rehabilitation services which have resulted in a sharp drop in admissions to state hospitals.

Reference to various comprehensive reports of these National Governors' Conferences indicate that Arizona has at least taken the first step toward achieving the maximum effectiveness in Mental Health treatment, but it is clear that we are a long way from maturity. It will require money, personnel and facilities.

Voluntary public contributions are considered an important essential to the success of any program undertaken in this field according to the Governors' Conference reports.

FEES — SO. ARIZ. MENTAL HEALTH CLINIC

3418 S. Sixth Ave., Tucson, Arizona — Dr. Robt. J. Shearer, Director Telephone MAin 3-3488

FEES — Director may exercise his discretion in applying the following WEEKLY charges for regular, accepted patients: —

Gross Monthly Income	(Year)	Family 3 or less	Family 4 or 5	Family 6 or more	(Maximum income eligible)	DIAGNOSTIC FEES
\$200	(\$2400)	1.00	0	0		
\$250	(\$3000)	1.50	1.00	0		
\$300	(\$3600)	2.00	1.50	0		
\$350	(\$4200)	2.50	2.00	1.00		
\$400	(\$4800)	3.00	2.50	1.50		
\$450	(\$5400)	4.00	3.00	2.00		
\$500	(\$6000)	5.00	4.00	3.00		
\$550	(\$6600)	8.00	5.00	4.00		
\$600	(\$7200)	10.00	6.00	5.00		
\$650	(\$7800)	12.00	8.00	6.00		
\$700	(\$8400)	14.00	10.00	7.00		
					Annual Family Income	Diagnostic Fees Referred to private physicians
					\$8400 — and over	\$25.00
					\$7400 — \$8399	\$20.00
					\$6400 — \$7399	\$15.00
					\$5400 — \$6399	\$ 8.00
					\$4400 — \$5399	\$ 5.00
					\$3400 — \$4399	\$ 3.00
					\$2400 — \$3399	\$ 3.00
					Less than \$2400	\$ 3.00

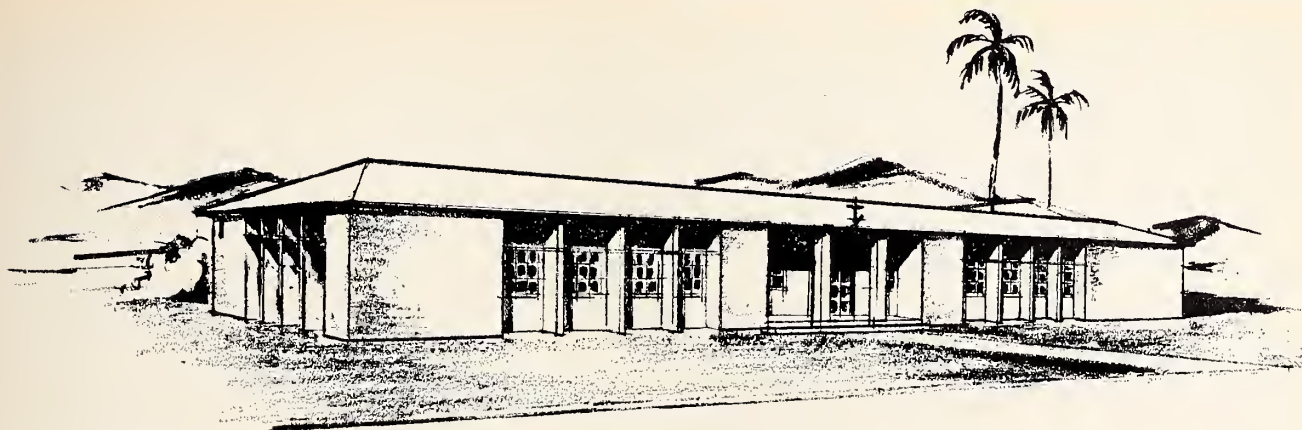
DEPOSITORY OF FEES: All clinical fees collected will be deposited with: PIMA COUNTY ASSN. for MENTAL HEALTH

ST. ELIZABETH OF HUNGARY OUT-PATIENT CLINIC

The Most Rev. Francis J. Green, Bishop of Tucson, described the new St. Elizabeth of Hungary Out-Patient Clinic and Geriatric Center as "the focal point of Christian love and American zeal." The bishop participated in the recent dedication services of the clinic located at 140 W. Speedway, Tucson.

The clinic provides medical and dental care for ambulatory patients of all races and creeds who cannot pay for the services of a private doctor or dentist and are not eligible for care from any local health facility. A social service council screens patients before assigning for any service except emergency. Operating monies for the non-profit clinic are from fees, donations and the Diocese.

A registered nurse or dental assistant are in



charge to see that the physician's or dentist's orders will be carried out either at the clinic or through the Social Service Department by referral.

Both medical and dental services are given by numerous local physicians and dentists. Medical staff officers are: Dr. John Gillette, President; Dr. S. I. Shapiro, President-elect; and Dr. Robert Blake, Secretary. Officers of the dental staff are: Dr. Thomas E. Bradel, President; Dr. Sam Marascalo, President-elect, and Dr. Wilfred Alter, Secretary. The nuns who operate the clinic are Sisters Aurelia Jane, director; Marie Jane, office manager and secretary; John Francis, director of social service; and Mary Christian, medical technologist.

Archbishop Daniel J. Gercke, the retired Bishop of Tucson, also participated in the dedication and spoke briefly.

"It is blessed to gain wealth," the Archbishop said, "and even more blessed to part with it for Christian charity."

DR. ARTHUR J. PRESENT INSTALLED PRESIDENT, AMERICAN COLLEGE OF RADIOLOGY

Dr. Arthur J. Present of Tucson, Arizona was installed as the 39th president of the American College of Radiology as the group concluded its annual meeting in February.

Dr. Present will succeed Dr. L. Henry Garland of San Francisco.

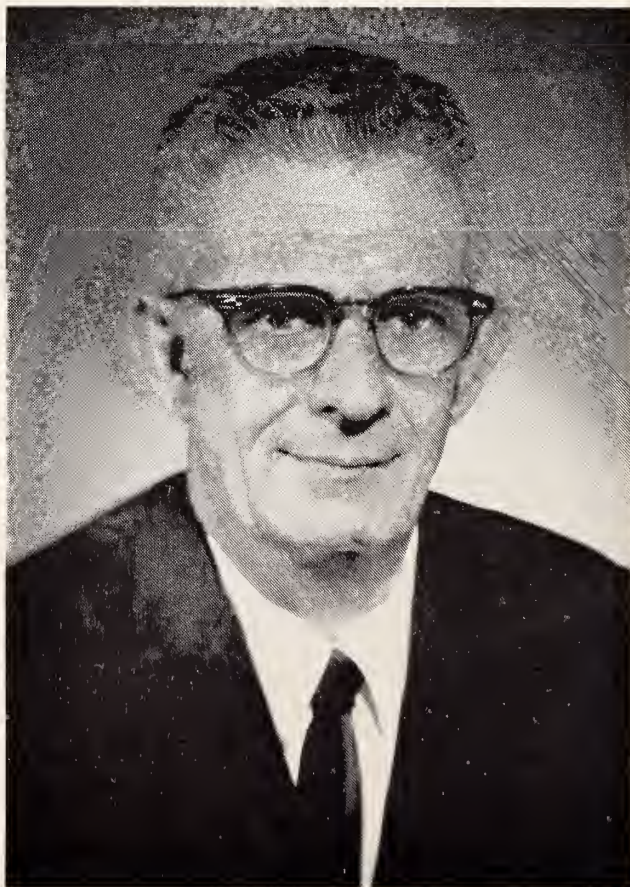
Dr. Present served as a Councilor to the College from Arizona and was chairman of the Board of Chancellors, the College executive body, before being chosen president. Besides the College, he has been active in the Radiological Society of North America.

He was graduated from the Yale University

Medical School in 1932 and completed residency training in radiology at Presbyterian Hospital in New York City in 1937.

Dr. Present is a member of Hayden, Present and Associates in Tucson and is a consultant to the Tucson Medical Center, St. Mary's Hospital, St. Joseph's Hospital, the Veterans Administration Hospital and the U. S. Air Force Hospital, all in Tucson.

He is a past president of the Arizona Division of the American Cancer Society and is a member of the ACS national executive committee. He is president of the Tucson Festival Society and has been active in the Arizona Corral Theater.





Imagine your Convalescence in this Picture

Note the Executone Intercom to the Nurses Station; for your Radio or T.V. for your Instant Attention; Living Room Decor with pull down Reading Lamps and Modern Lounge Furniture; Private Phone; Bright but Soft Color combinations with cheerful window drapes.

**AROUND THE CLOCK REGISTERED NURSE SERVICE
ADMISSION BY REFERRAL OF YOUR DOCTOR OF MEDICINE**

COST? – A modest \$14.00 per day is the starting rate.

Phone or Write

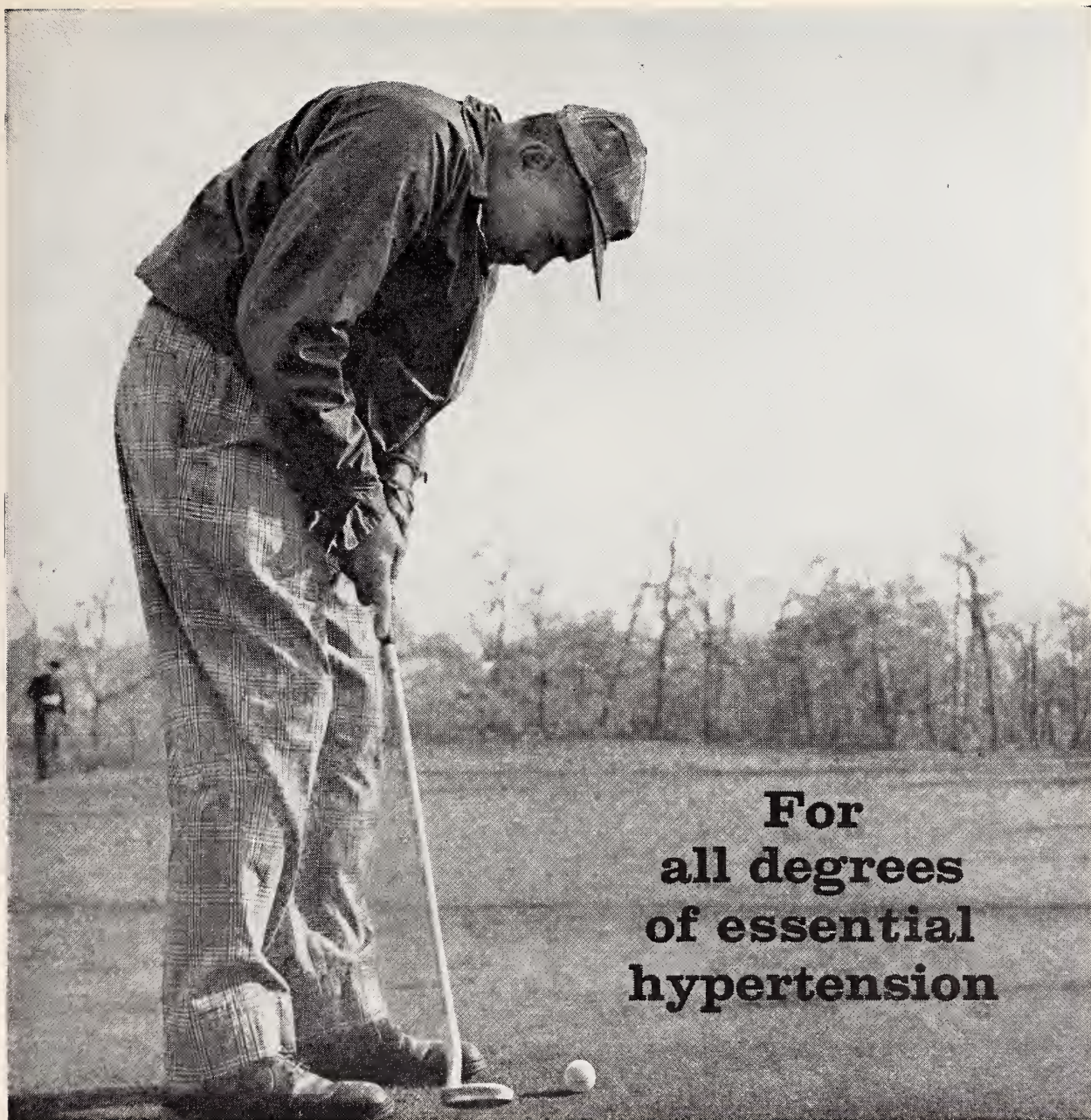
WHITE ANGEL INN

277-6651

1845 East Thomas Road

Phoenix, Arizona





**For
all degrees
of essential
hypertension**

"relief of symptoms is striking with Rautrax-N"[†]

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin \bar{c} K (antihypertensive-diuretic) for greater antihyper-

tensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin \bar{c} K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

[†]Hutchison J. C.: Current Therap. Res. 2:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N^{*}

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride



*Squibb Quality —
the Priceless Ingredient*
SQUIBB DIVISION **Olin**

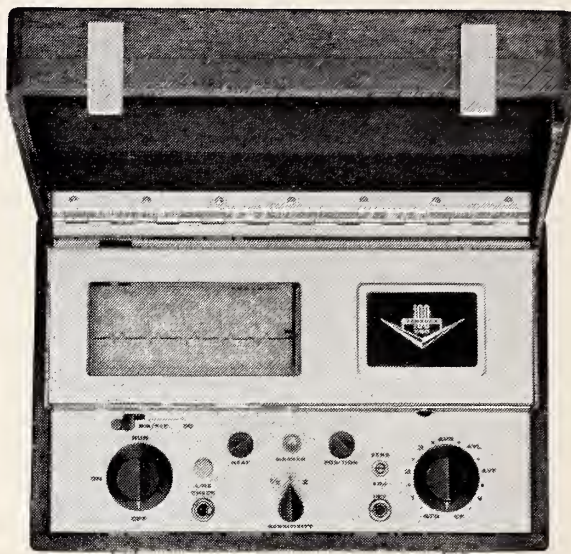
^{*}RAUDIXIN[®], ^{*}RAUTRAX[®], AND ^{*}NATURETIN[®] ARE SQUIBB TRADEMARKS.

Depend on it

The inherent accuracy of a Sanborn electrocardiograph recording is something you take for granted—and rightly so. Sanborn ECG's benefit from our continuing work in electrocardiography and over a wide range of medical electronics.

Convenience is also important. That's why there are three Sanborn electrocardiographs, each simple to operate and each designed to meet specific needs. For office, clinic and hospital use there are the 2-speed, 3-sensitivity Model 100 Viso and its mobile counterpart the Model 100M. And for on-call work, the briefcase-size 18-pound Visette is ideal.

Another advantage of owning a Sanborn instrument: you deal with people who know your ECG and value your satisfaction. Our service starts with a no-obligation, 15-day trial of the Sanborn ECG of your choice, and continues as long as you keep the instrument. Contact the nearest Sanborn Branch Office or Service Agency, or write Manager, Clinical Instrument Sales, at the main office.



***...for
characteristic
Sanborn quality***



SANBORN COMPANY
MEDICAL DIVISION Waltham 54, Mass.

PHOENIX Resident Representative 8341 N. 7th St., 943-6917

Future Medical Meetings and Postgraduate Education

THE ARIZONA MEDICAL ASSOCIATION, INC.

71ST ANNUAL MEETING

April 25, 26, 27, 28, 1962

SAFARI HOTEL

SCOTTSDALE, ARIZONA

PROGRAM

WEDNESDAY, April 25, 1961

7:30 A.M.	Breakfast	Convention Center
7:30 A.M.	Board of Directors Meeting	Convention Center
12:00 Noon	Luncheon — Board of Directors	French Quarter
1:00 P.M.	House of Delegates — First Regular Session	Convention Center
3:00 P.M.	Blue Shield Annual Corporation Meeting	Convention Center
7:00 P.M.	Reception	New Pool Patio
8:00 P.M.	Chuck Wagon Dinner	New Pool Patio

THURSDAY, April 26, 1962

John R. Schwartzmann, M.D., General Chairman

SCIENTIFIC SESSION

8:00 A.M.	Breakfast: Panel Discussion	Main Dining Room
to 9:30 A.M.	"Public Health Problems in Arizona" Hugh H. Smith, M.D., Moderator Lloyd M. Farner, M.D., Discussant Stanford F. Farnsworth, M.D., Discussant Frederick J. Brady, M.D., Discussant William Soberanes, M.D., Discussant	
9:30 A.M.	Intermission	
9:45 A.M.	Scientific Session "Diagnosis and Treatment of Placenta Praevia" John L. Parks, M.D., Washington, D.C. Richard B. Johns, M.D., Moderator Hermann S. Rhu, M.D., Discussant	Convention Center

GENERAL SESSION

10:30 A.M.	Opening Exercises Call to Order Leslie B. Smith, M.D., President Invocation The Reverend John Atwood Scottsdale Methodist Church Memorial Service The Reverend John Atwood Scottsdale Methodist Church Welcome Yavapai County Medical Society Albert O. Daniels, M.D. Response The Arizona Medical Association, Inc. Roland F. Schoen, M.D. Introduction of the Incoming President Leslie B. Smith, M.D. Presidential Address Clarence E. Yount, Jr., M.D.	Convention Center
11:45 A.M.	Intermission	

Future Medical Meetings and Postgraduate Education

SCIENTIFIC SESSION
THE PUBLIC IS INVITED

12:00 Noon	Scientific Session “Pediatric Aspects of Mental Retardation” Richard Koch, M.D., Los Angeles, California Richard B. Johns, M.D., Moderator Herman W. Lipow, M.D., Discussant	Convention Center
1:00 P.M.	Specialty Society Luncheons Arizona Chapter – American College of Surgeons “Diagnosis and Treatment of Intestinal Obstruction” J. Howard Payne, M.D., Los Angeles, California Arizona Section – American College of Obstetrics & Gynecology – Phoenix and Tucson Ob-Gyn Societies “Genetics and Gynecologic Practice” John L. Parks, M.D., Washington, D.C. Arizona Society of Allergists “The Immediate Type of Allergic Reaction” William B. Sherman, M.D., New York, New York Arizona Society of Pathologists “Sarcomas of the Brain” James W. Kernohan, M.D., Phoenix, Arizona Arizona Chapter – United States Section – International College of Surgeons “ICS Matters” Horace Turner, M.D.	French Quarter Convention Center French Quarter Kudu Room Lanai Room

REFERENCE COMMITTEES

2:30 P.M.	Reference Committees	Conference Room

AMERICAN MEDICAL WOMEN'S ASSOCIATION

3:15 P.M. Coffee Hour French Quarter

ENTERTAINMENT

1:00 P.M.	Annual Handicap Golf Tournament	Indian Bend Country Club
3:00 P.M.	Annual Bowling Tournament	Papago Lanes, Scottsdale

SPECIALTY SOCIETY BANQUETS

5:00 P.M.	Western Reserve Alumni Association Cocktail Hour . . . Business Meeting	Pool Patio
6:30 P.M.	George Washington University Alumni Association 6:30 P.M. Cocktails 7:45 P.M. Dinner	Cloud Club, Phoenix
7:00 P.M.	Arizona Chapter – Western Orthopedic Association Arizona Radiological Society	Location to be announced Kudu Room

Future Medical Meetings and Postgraduate Education

Arizona Society of Anesthesiologists
6:00 P.M. Business Session
7:00 P.M. Cocktails 8:00 P.M. Dinner
“The Anesthesiologist As A Physician”
Peere C. Lund, M.D., Johnstown,
Pennsylvania

Convention Center

FRIDAY, April 27, 1962

John R. Schwartzmann, M.D., General Chairman

SCIENTIFIC SESSION

7:30 A.M.	Breakfast	Main Dining Room
8:00 A.M.	Breakfast: Panel Discussion – “Fetal and Infant Salvage” Edward Sattenspiel, M.D., Moderator Richard Koch, M.D., Discussant Peere C. Lund, M.D., Discussant John L. Parks, M.D., Discussant Stephen O. Schwartz, M.D., Discussant	Main Dining Room
9:15 A.M.	Intermission	
9:30 A.M.	Scientific Session “Congenital Orthopedic Defects” Warren A. Colton, Jr., M.D., Phoenix, Arizona James E. Brady, Jr., M.D., Moderator Paul H. DeVries, M.D., Discussant	Convention Center
10:00 A.M.	Scientific Session “Allergic Reactions to Drugs” William B. Sherman, M.D., New York, New York James E. Brady, Jr., M.D., Moderator Daniel H. Goodman, M.D., Discussant	Convention Center
10:30 A.M.	Scientific Session “Anemia” Stephen O. Schwartz, M.D., Chicago, Illinois James E. Brady, Jr., M.D., Moderator Ralph A. Jackson, M.D., Discussant	Convention Center
11:00 A.M.	Intermission	
11:15 A.M.	Scientific Session Presentation – Annual Award Paper Paper to be read by Author Arthur R. Nelson, M.D., Moderator	Convention Center
11:45 A.M.	Scientific Session “Treatment of Acquired Heart Disease” Henry T. Bahnson, M.D., Baltimore, Maryland Arthur R. Nelson, M.D., Moderator James E. O'Hare, M.D., Discussant	Convention Center



Henry T. Bahnson, M.D.

Warren A. Colton, Jr., M.D.
Phoenix, Arizona

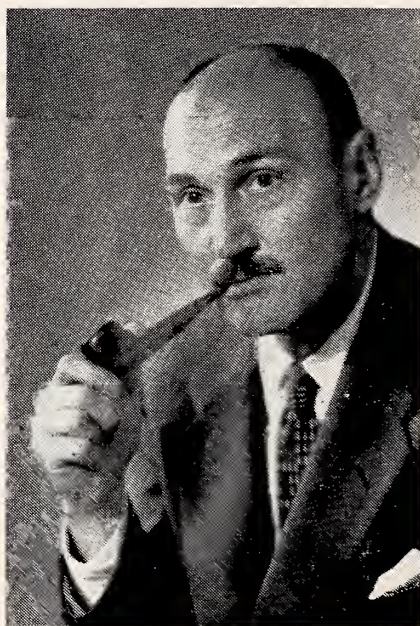
(Photo Unavailable)

GUEST

1962 ANNUAL



John L. Parks, M.D.



Steven O. Schwartz, M.D.

Richard Koch, M.D.
Los Angeles, California

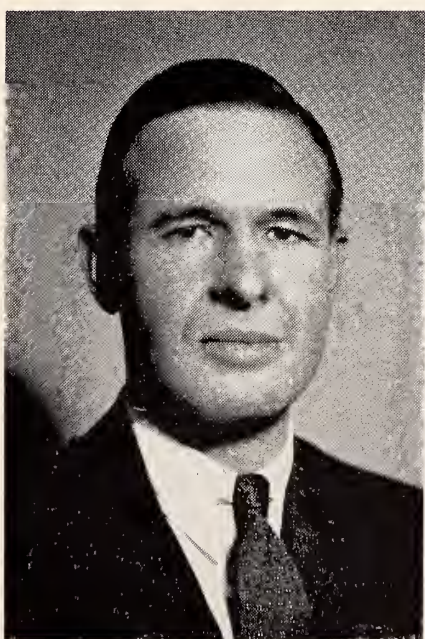
(Photo Unavailable)



Peere C. Lund, M.D.

ORATORS

MEETING



William B. Sherman, M.D.



William Soberanes, M.D.

Future Medical Meetings and Postgraduate Education

12:15 P.M.	Scientific Session "Obstetrical Anesthesia" Peere C. Lund, M.D., Johnstown, Pennsylvania Arthur R. Nelson, M.D., Moderator Fred H. Landeen, M.D., Discussant	Convention Center
1:00 P.M.	Specialty Society Luncheons Arizona Chapter — American Academy of General Practice Arizona Chapter — American College of Chest Physicians "Treatment of Tetralogy of Fallot" Henry T. Bahnson, M.D., Baltimore, Maryland "Other Aspects of Asthma" William B. Sherman, M.D., New York, New York Arizona Society of Pediatrics "Infections, Focusing on Meningitis" Richard Koch, M.D., Los Angeles, California Arizona Psychiatric Society	French Quarter Convention Center Kudu Room Lanai Room
HOUSE OF DELEGATES		
3:00 P.M.	Second Regular Session	Convention Center
ENTERTAINMENT		
7:30-8:30 P.M.	Presidential Reception	New Pool Patio
8:30 P.M.	President's Dinner Dance	Convention Center

SATURDAY, April 28, 1962

John R. Schwartzmann, M.D., General Chairman

SCIENTIFIC SESSION		
9:00 A.M.	Scientific Session "Asthma" William B. Sherman, M.D., New York, New York Richard E. H. Duisberg, M.D., Moderator Robert H. Stevens, M.D., Discussant	Convention Center
9:30 A.M.	Scientific Session "Etiology of Leukemia" Stephen O. Schwartz, M.D., Chicago, Illinois Richard E. H. Duisberg, M.D., Moderator John F. Christianson, M.D., Discussant	Convention Center
10:00 A.M.	Scientific Session "Ulcerative Colitis in Children" Richard Koch, M.D., Los Angeles, California Richard E. H. Duisberg, M.D., Moderator Hugh C. Thompson, M.D., Discussant	Convention Center

Future Medical Meetings and Postgraduate Education

10:30 A.M.	Scientific Session "Reflections Upon Anesthesia for Minor Surgery in the Office or Out-Patient Department" Peere C. Lund, M.D., Johnstown, Pennsylvania Richard E. H. Duisberg, M.D., Moderator Reginald J. M. Zeluff, M.D., Discussant	Convention Center
11:00 A.M.	Intermission	
11:15 A.M.	Scientific Session "Late Results in Treatment of Aortic Aneurysms and Aorto-Iliac Occlusive Disease" Henry T. Bahnson, M.D., Baltimore, Maryland Walter M. O'Brien, M.D., Moderator Lee B. Brown, M.D., Discussant	Convention Center
11:45 A.M.	Scientific Session "Management of Threatened Abortion" John L. Parks, M.D., Washington, D.C. Walter M. O'Brien, M.D., Moderator William E. Crisp, M.D., Discussant	Convention Center
12:15 P.M.	Panel Discussion . . . "Orthopedic Problems in the Aged" Philip G. Derickson, M.D., Moderator John H. Ricker, M.D. "Hand and Wrist Problems in the Aged" Christopher A. Guarino, M.D. "Osteoporosis and Compression Fractures of the Spine in the Aged" Thomas H. Taber, Jr., M.D. "Present Day Trends in Treatment of Hip Fractures in the Aged" Warren Day Eddy, Jr., M.D. "Management of Shoulder Fractures in the Aged"	Convention Center
1:15 P.M.	ADJOURNMENT	

ARIZONA PUBLIC HEALTH
ASSOCIATION

Annual Meeting
April 18-20, 1962
Pioneer Hotel
Tucson, Arizona

will be held
May 9-12, 1962
Cliff Manor Hotel
Tucson, Arizona

ARIZONA'S FIRST CONTINUING
EDUCATION SEMINAR

"New Trends in Public Health In
Stroke and Its Rehabilitation"

Among those sponsoring the seminar are:
Arizona Public Health Association
Arizona Heart Association
Southern Arizona Heart Association
University of Arizona
Maricopa and Pima County Health
Departments

paf

DOUCHE POWDER

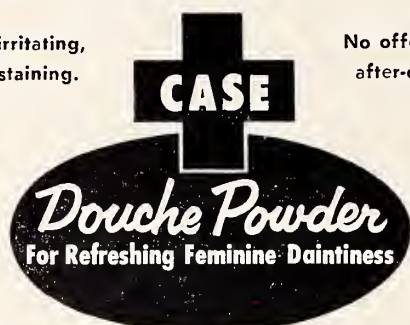
Buffered to control a normal vaginal pH.

P.A.F.'s low surface tension increases penetration into the vaginal rugae and dissolution of organisms including trichomonas and fungus.

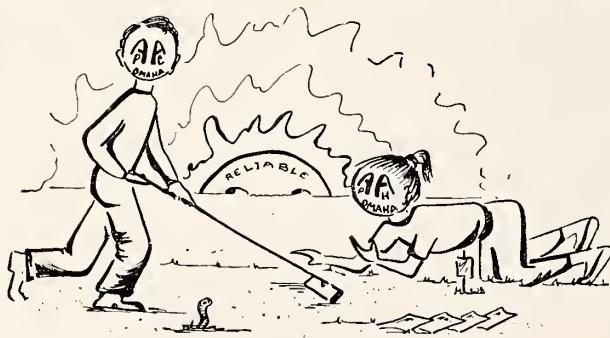
P.A.F.'s high surface activity liquifies viscus mucus on vaginal mucosa, releasing accumulated debris in the vaginal tract.

Non-irritating,
non-staining.

No offensive
after-odor.



G. M. Case Laboratories — San Diego, Calif.



Protection Against Loss Of Income From Accident & Sickness As Well As Hospital Expense Benefits For You And All Your Eligible Dependents.

ALL
PREMIUMS
COME FROM

PHYSICIANS
SURGEONS
DENTISTS

ALL
BENEFITS
GO TO

PHYSICIANS CASUALTY & HEALTH
ASSOCIATIONS
OMAHA 31, NEBRASKA

Since 1902
Handsome Professional Appointment Book
sent to you FREE upon request.

Serving Arizona
Health Needs
Since 1908

Ryan-Evans
DRUG STORES

Phoenix - Tucson - Scottsdale - Maryvale

Glendale - Sunnyslope - Tempe - Globe

Casa Grande - Miami - Wickenburg

POST-EZE SYSTEMS ARE AVAILABLE FOR:

- ★ ACCOUNTS RECEIVABLE
- ★ ACCOUNTS PAYABLE— PURCHASES
- ★ ACCOUNTS PAYABLE — CASH DISBURSEMENT



Now, small- and medium-size offices can effect the economies of mechanized accounting *without buying machines or employing specialized operators.*

POST-EZE simplified plans save up to 66% of time, eliminate transcription errors, and keep all records up-to-date and in balance, because: —

- ONE writing posts all records
- ONE simple proof proves all records

To Learn How you will save up to 66% (it only takes 10 minutes)

CALL FOR TRAINED REPRESENTATIVE

Alpine 4-6611
3111 N. 29th Avenue
PHOENIX, ARIZONA

MAin 2-2446
604 N. 4th Avenue
TUCSON, ARIZONA



LABORATORIES

THE DIAGNOSTIC LABORATORY

*Complete Medical Laboratory Service, X-Ray Diagnosis
Radiation Therapy, Radioactive Isotopes*



DEPARTMENT OF PATHOLOGY

MAURICE ROSENTHAL, M.D.
GEORGE SCHARF, M.D.
SEYMOUR B. SILVERMAN, M.D.
BLAND GIDDINGS, M.D.
GERALDINE PACE, M.D.

DEPARTMENT OF RADIOLOGY

MARCY L. SUSSMAN, M.D.
E. LAWRENCE GANTER, M.D.

Diplomates of the American Boards of PATHOLOGY and RADIOLOGY

1130 E. McDowell Rd.

Phoenix, Arizona

Phone AL 8-1601

Information, Price Lists and Mailing Containers upon request.

Medical Center X-Ray and Clinical Laboratory

1313 North 2nd Street
Phoenix, Arizona
Phone ALpine 8-3484

AND

Professional X-Ray and Clinical Laboratory

510 Professional Bldg.
Phoenix, Arizona
Phone ALpine 3-4105

DIAGNOSTIC X-RAY

X-RAY THERAPY

RADIUM THERAPY

CLINICAL PATHOLOGY

TISSUE PATHOLOGY

ELECTROCARDIOGRAPHY

BASAL METABOLISM

R. Lee Foster, M.D., F.A.C.R., F.A.C.P., Director

Martin L. List, M.D., Radiologist

Diplomates of American Board of Radiology

Lorel A. Stapley, M.D., Consultant Pathologist

PHARMACY DIRECTORY

Your Prescription Store

DIERDORF PHARMACY

Phone BR 5-5212

2315 N. 24th St. Phoenix, Arizona
Milburn F. Dierdorf

In Scottsdale call
Lute's Scottsdale Pharmacy

For

PRESCRIPTIONS

WH 5-8420 — WH 5-8429

Next to the 1st National Bank

SRUTWA PHARMACIES, INC.

WH 5-3791

Scottsdale Medical Center

218 E. Stetson Drive

Scottsdale, Arizona

DISTRICT NO. 1

ARIZONA STATE NURSES ASS'N.

MRS. MARJORIE E. KASUN, R.N.

Registrar

Nurses' Professional Registry

703 Professional Bldg. — Phoenix — AL 4-4151

DOCTORS' CENTRAL DIRECTORY

Helen M. Barrasso, R.N., Director

For Emergencies or in Absence of Your Doctor

CALL EA 7-7471

At Your Service 24 Hours Daily

3029 E. 2nd St.

Tucson, Arizona

"Established 1932"

CLASSIFIED

"SITUATION WANTED"

OPTOMETRIST, experienced, non-licensed in Arizona, desires association with Medical Group having EENT section, or with an Ophthalmology group in Phoenix area, for dispensing and contact lens fitting. Complete information supplied upon request. Box 19-4-1, Arizona Medicine Journal.



"General surgeon, 44 years of age, Diplomate of The American Board of Surgeons, Fellow of The American College of Surgeons; is interested in locating in Arizona. Have practiced in mid-west city for ten years and can furnish many references." Box 19-4, Arizona Medicine Journal.

HILLCREST MEDICAL CENTER, INC.

Established 1921

- General Medical
- Orthopedic
- Acute or Chronic
- Post-Operative
- Geriatric
- Convalescent
- Non-Sectarian
- Medical Doctor of your choice

LISTED by American Hospital Association

24 Hr. Professional Nursing — R.N.'s on all shifts.

Phone: MA 3-7591

1501 N. 3rd Ave.

Tucson, Arizona

Alberta M. Lovett, President

Charles H. Schmid, Treasurer

Katharine C. Schmid, Director, Admission-Patient Services

BUTLERS REST HOME

- Bed Patients and Chronics

- Television
- 24 Hour Nursing Care
- Excellent Food
- State Licensed

802 N. 7th St.

Phoenix, Arizona

Telephone AL 3-2592

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy
American College of Chest Physicians
15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
Fellow, American College of Allergists
Fellow, American Academy of Allergy
31 W. Camelback Road CR 7-3337
Phoenix, Arizona

Pediatric Allergy

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists

322 W. McDowell Rd.

PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY

Diplomate of American Board of
Dermatology and Syphilology

Phone ALpine 3-5264

105 W. McDowell Road

Phoenix, Arizona

WILLIAM SNYDER, M.D.

Diplomate of the American Board of Dermatology
Diseases of the Skin
Skin Cancer — Cutaneous Allergy
2021 N. Central Ave. — ALpine 3-8383
PHOENIX, ARIZONA

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S

Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

MALIGNANT DISEASE

JAMES M. OVENS, M.D.

F.A.C.S .F.I.C.S.

Diplomate American Board of Surgery

Cancer and Tumor Surgery

X-ray and Radium Therapy

333 W. Thomas Road

Phone 279-7301

Phoenix 13, Arizona

A. L. LINDBERG, M.D.

Neoplastic Diseases

Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona

Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC

ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D., F.A.C.S.* — A. L. Swenson, M.D.,
F.A.C.S.* — Ray Fife, M.D., F.A.C.S.* — Sidney L. Stovall, M.D.,
F.A.C.S.* — Thomas H. Taber, Jr., M.D., F.A.C.S.*
Robert A. Johnson, M.D.

*Diplomates of the American Board of Orthopedic Surgery.

2620 No. 3rd Street — Phoenix, Arizona — CR 7-6211

PHYSICIANS' DIRECTORY

PROCTOLOGY

WALLACE M. MEYER, M.D.
PROCTOLOGY

Park Central Medical Bldg.
Phone CR 4-5632

550 W. Thomas Road — 216 Patio B
Phoenix, Arizona

JAMES T. JENKINS, M.D.

Fellow American Proctologic Society
Fellow American College of Surgeons
Fellow International College of Surgeons
Practice Limited to Diseases of the Anus, Rectum
and Colon

2021 N. Central Ave.
Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

CARL BREITNER, M.D.

Psychiatry

AL 2-9108

909 E. Brill St. Phoenix, Arizona

LEO RUBINOW, M.D.

PSYCHIATRY

AM 6-0630

224 E. Thomas Rd. Phoenix, Arizona

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.

SPEECH PATHOLOGIST

Advanced Member
American Speech and Hearing Association
Diagnoses Speech and Swallowing Therapy
240 W. Osborn Rd. Phone AM 5-0071
Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P.
MARTIN L. LIST, M.D., Radiologist

Diplomates of American Board of Radiology
Diagnostic Roentgenology, X-Ray and Radium Therapy

510 Professional Bldg. 1313 N. Second St.
Phone ALpine 3-4105 Phone ALpine 8-3484
Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.

Diplomate of American Board of Radiology

E. LAWRENCE GANTER, M.D.

Diplomate of American Board of Radiology

DIAGNOSTIC RADIOLOGY

THERAPEUTIC RADIOLOGY

RADIOISOTOPES

1130 E. McDowell Rr.

Telephone ALpine 8-1601

Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.

123 South Stone Avenue

Tucson, Arizona

Office Phone MA 2-3371

Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.

GENERAL SURGERY

Certified by the American Board of Surgery

550 W. Thomas Road
Phone CRestwood 4-2081
Phoenix, Arizona

“but why don’t you tell my patients...?”

We pharmaceutical manufacturers, over the past several years and in various ways, have been trying to tell the story of the drug industry’s role as a member of the American health team, and thus to correct certain unfortunate misconceptions. And all along we have looked upon you of the medical profession, on whose good will we are so dependent, as perhaps our chief audience.

But now we wonder . . . because so many of you have said to us lately, either orally or in writing, “Why are you telling us this? Our patients are the ones who really need to hear this story.”

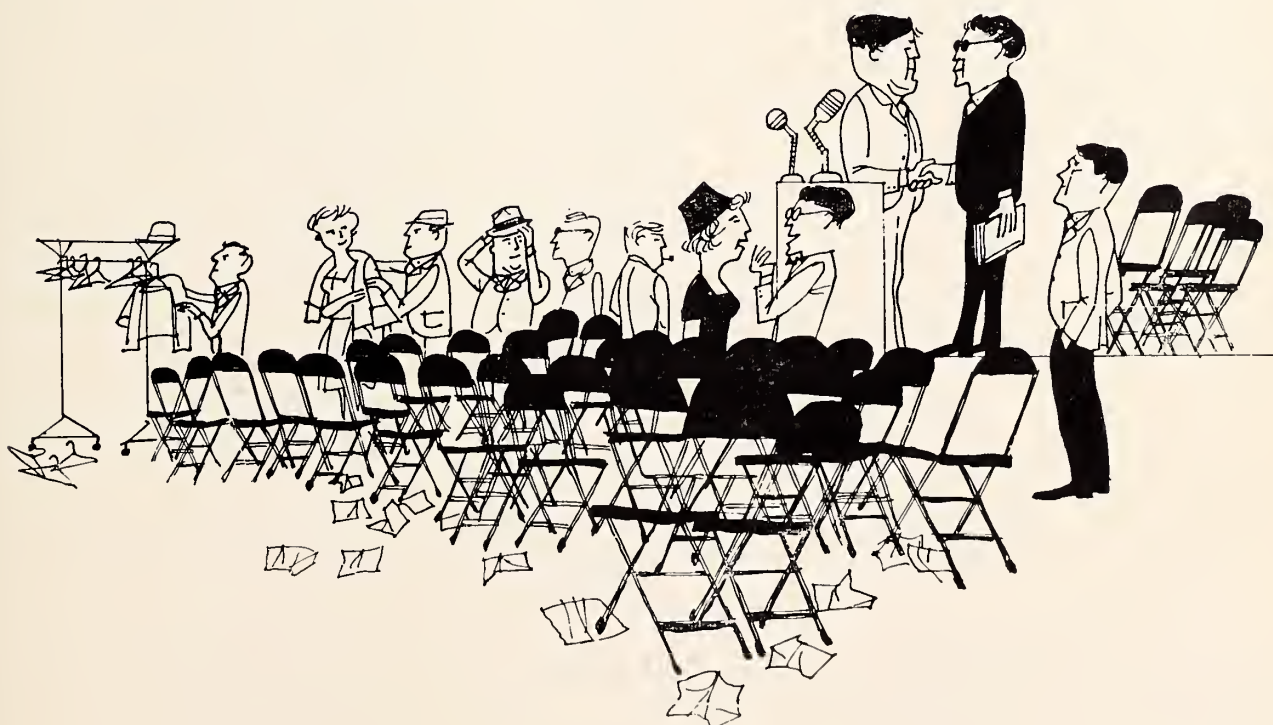
Thank you for pointing out this need; and for the aid some of you have already given us. We think we can now be of still more help in

answering many of the questions your patients are asking:—

A good number of us have Speakers Bureaus. If you will designate the place and time, we will have an industry speaker on hand to address any favorite organization of yours . . . be it a civic, political, or church group; your local PTA; a social club, or a fraternal order.

You have only to send a letter or post card, giving the particulars, to the Office of Public Information, Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D.C. (or phone, National 8-6435). They will make the necessary arrangements* (or promptly let you know if there’s any hitch).

* But please try to give at least three weeks’ notice.



INDEX TO ADVERTISERS

Abbott Laboratories	29A, 30A	National Casualty Co.	48A
Ames Co., Inc.	Inside Back Cover	Nurses Directory	80A
Baker Laboratories, Inc.	53A	Organon, Inc.	54A
Breon Laboratories, Inc.	36A	Parke-Davis & Co.	Inside Front Cover, 1A
Bristol Laboratories	4A, 5A	Pfizer Laboratories.....	14A, 15A, 16A, 51A, 52A
Brown Pharmaceutical	39A	Pharmacy Directory	80A
Burroughs-Wellcome Co., Inc.	40A	Physician's Casualty Assn.	78A
Butlers Rest Home	80A	Robins, A. H. & Co., Inc.....	7A, 41A, 42A, 43A
Camelback Hospital	34A	Roche Laboratories	Back Cover
Camelback Professional Building	50A	Ryan Evans Drugs	78A
Case, G. M. Laboratories, Inc.	78A	Sanborn & Co.	70A
Classified Ads	80A	Sardeau & Co.	60A
Crystal Bottled Waters	50A	Saunders, W. B. & Co.	13A
Doctors Directory	80A	Schering Corp.	37A
Franklin Hospital	84A	Searle, G. D. & oC.	32A
Hillcrest Medical Center	80A	Squibb, E. R. & Sons Co.....	33A, 44A, 45A, 69A
Hobby Horse Ranch School	84A	Upjohn, The Co.	18A, 19A
H. B. A. Life Insurance Co.	46A	Valley National Bank	16A
Lederle Laboratories	17A	Wallace Laboratories	70A, 35A
Lilly, Eli & Co.	Front Cover, 38A	White Angel Inn	68A
Loftins Business Forms	78A	Winthrop Laboratories	2A, 9A, 10A, 11A, 12A, 31A, 49A, 59A
Lorillard, P. & Co.	58A		
MacAlpine Drugs	48A		

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR
CONDITIONING FOR YEAR ROUND COMFORT

The Franklin Hospital

Hospital License No. 71
Registered A.M.A.
Member A.H.A.

367 No. 21st Avenue
PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751

HOBBY HORSE RANCH SCHOOL

A School For Exceptional Children

The Hobby Horse Ranch School is both home and school for a small group of children. It welcomes the child who is mentally retarded and physically handicapped as well as the backward child who suffers no physical handicap.

The Hobby Horse Ranch School is a branch of Fairview School in Fishkill, New York which was established in 1936.

Directors: Blanche C. Lightowler, B.A.
Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE



UNITED STATES AND MEXICO

Volume 19

Number 5

May, 1962

U.C. MEDICAL CENTER LIBRARY

MAY 28 1962

San Francisco, 22

for
increased
pain...

increased
analgesia

Lilly

DARVON® COMPOUND-65

Darvon Compound-65 provides twice as much Darvon® as does regular Darvon Compound without increase in salicylate content or the size of the Pulvule®. Usual dosage is 1 Pulvule three or four times daily.

Darvon Compound	Darvon Compound-65
32 mg.	Darvon 65 mg.
162 mg.	Acetophenetidin 162 mg.
227 mg.	A.S.A.® 227 mg.
32.4 mg.	Caffeine 32.4 mg.

Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly)
Darvon® (dextro propoxyphene hydrochloride, Lilly)
A.S.A.® (acetylsalicylic acid, Lilly)

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

220245

"crying solitary in lonely places"



DILANTIN®

(diphenylhydantoin, Parke-Davis)

permits a richer life for the epileptic

"It has been more than twenty years since the introduction of diphenylhydantoin sodium (DILANTIN Sodium) as an anti-convulsant substance. This drug marks a milestone in the rational approach to the management of the epileptic."¹ In grand mal and psychomotor seizures, DILANTIN is a drug of choice for a variety of reasons: • effective control of seizures¹⁻⁹ • oversedation is not a common problem² • possesses a wide margin of safety³ • low incidence of side effects³ • its use is often accompanied by improved memory, intellectual performance, and emotional stability.¹⁰ DILANTIN (diphenylhydantoin, Parke-Davis) is available in several forms, including DILANTIN Sodium Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANITIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100. for the petit mal triad: MILONTIN® Kapseals (phen-suximide, Parke-Davis) 0.5 Gm., bottles of 100 and 1,000; Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis) 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis) 0.25 Gm., bottles of 100.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

REFERENCES: (1) Roseman, E.: *Neurology* **11**:912, 1961. (2) Bray, P. F.: *Pediatrics* **23**:151, 1959. (3) Chao, D. H.; Druckman, R., & Kellaway, P.: *Convulsive Disorders of Children*, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.: *M. Clin. North America* **42**:317, 1958. (5) Livingston, S.: *The Diagnosis and Treatment of Convulsive Disorders in Children*, Springfield, Ill., Charles C Thomas, 1954, p. 190. (6) *Ibid.*: *Postgrad. Med.* **20**:584, 1956. (7) Merritt, H. H.: *Brit. M. J.* **1**:666, 1958. (8) Carter, C. H.: *Arch. Neurol. & Psychiat.* **79**:136, 1958. (9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: *Epileptic Seizures*, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (10) Goodman, L. S., & Gilman, A.: *The Pharmacological Basis of Therapeutics*, ed. 2, New York, The Macmillan Company, 1955, p. 187.

PARKE-DAVIS

92462

PARKE, DAVIS & COMPANY, Detroit 32, Michigan





***For peptic ulcer
gastric hyperacidity
and gastritis...***

*In year-long study on
peptic-ulcer patients*

New Creamalin® Antacid Tablets

*"...faster in onset
of action...and for
a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled..."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:

Current Therap. Res. 3:29, Feb., 1961.

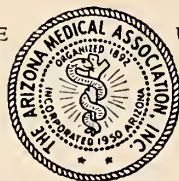
Winthrop
LABORATORIES
New York 18, N. Y.

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

May, 1962



Vol. 19, No. 5

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

PROFESSIONAL COMMITTEE MEETING — MINUTES — February 11, 1962	11A
ANNUAL REPORT OF THE TREASURER	15A
ANNUAL REPORT OF THE CENTRAL OFFICE ADVISORY COMMITTEE	19A

ORIGINAL ARTICLES

HOST FACTORS IN RELATION TO THE ACTION OF ENVIRONMENTAL CARCINOGENIC AGENTS	95
Paul Kotin, M.D. and Hans L. Falk, Ph.D.	
BRONCHOGENIC CARCINOMA — A CHALLENGE TO THE MEDICAL PROFESSION	102
H. Corwin Hinshaw, M.D.	
THE CHANGING PICTURE OF PSYCHIATRIC HOSPITALIZATION	105
Ruth I. Barnard, Ph.D., M.D.	
THE USE OF THE VERMIFORM APPENDIX IN URETEROPLASTY	110
Delfino Gallo, M.D.	
APENDICE CECAL COMO MATERIAL DE URETEROPLASTIA	117
Delfino Gallo, M.D.	
DOCTORS, WORDS, CONTROLS	120
Robert D. Smith, M.D.	

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

ANNUAL MEETING — 1962	30A
-----------------------------	-----

PRESIDENT'S PAGE

ANNUAL REPORT — Leslie B. Smith, M.D.	37A
--	-----

EDITORIAL

MENTAL FITNESS	45A
William B. McGrath, M.D.	
EDITOR'S NOTES	46A

TOPICS OF CURRENT MEDICAL INTEREST

ARIZONA POISONING CONTROL INFORMATION CENTER Vitamin A Poisoning	51A
---	-----

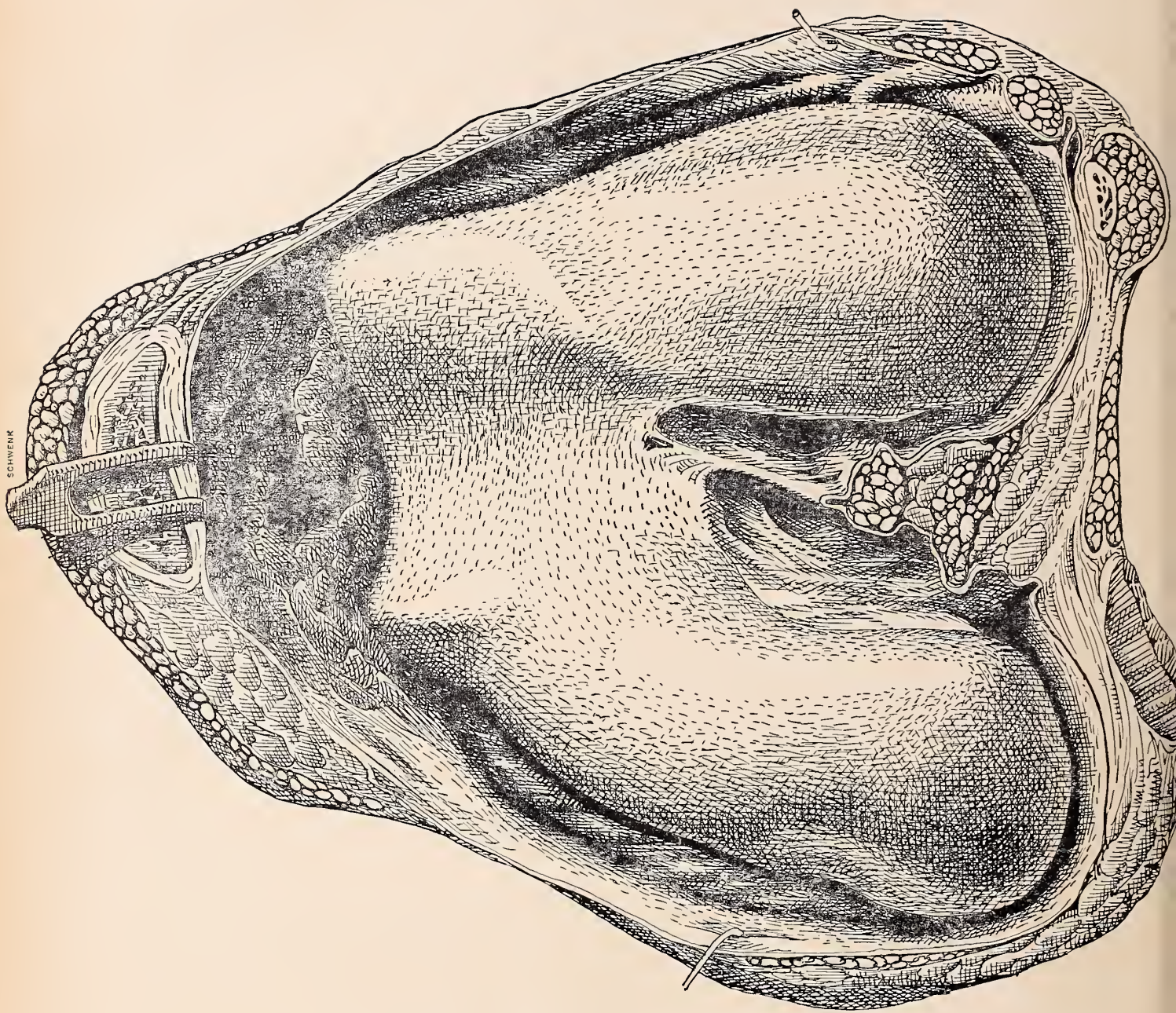
FUTURE MEDICAL MEETINGS AND POST-GRADUATE EDUCATION

GOOD SAMARITAN HOSPITAL SEMINARS	61A
REGIONAL MEETINGS — SUMMER AND EARLY FALL — 1962	63A

DIRECTORY

OFFICERS AND COMMITTEES	6A
SOCIEDAD MEDICA D ESTADOS UNIDOS DE PORTE AMERICA Y MEXICO	8A
MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO	8A
WOMAN'S AUXILIARY	8A
INDEX TO ADVERTISERS	72A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription \$5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.



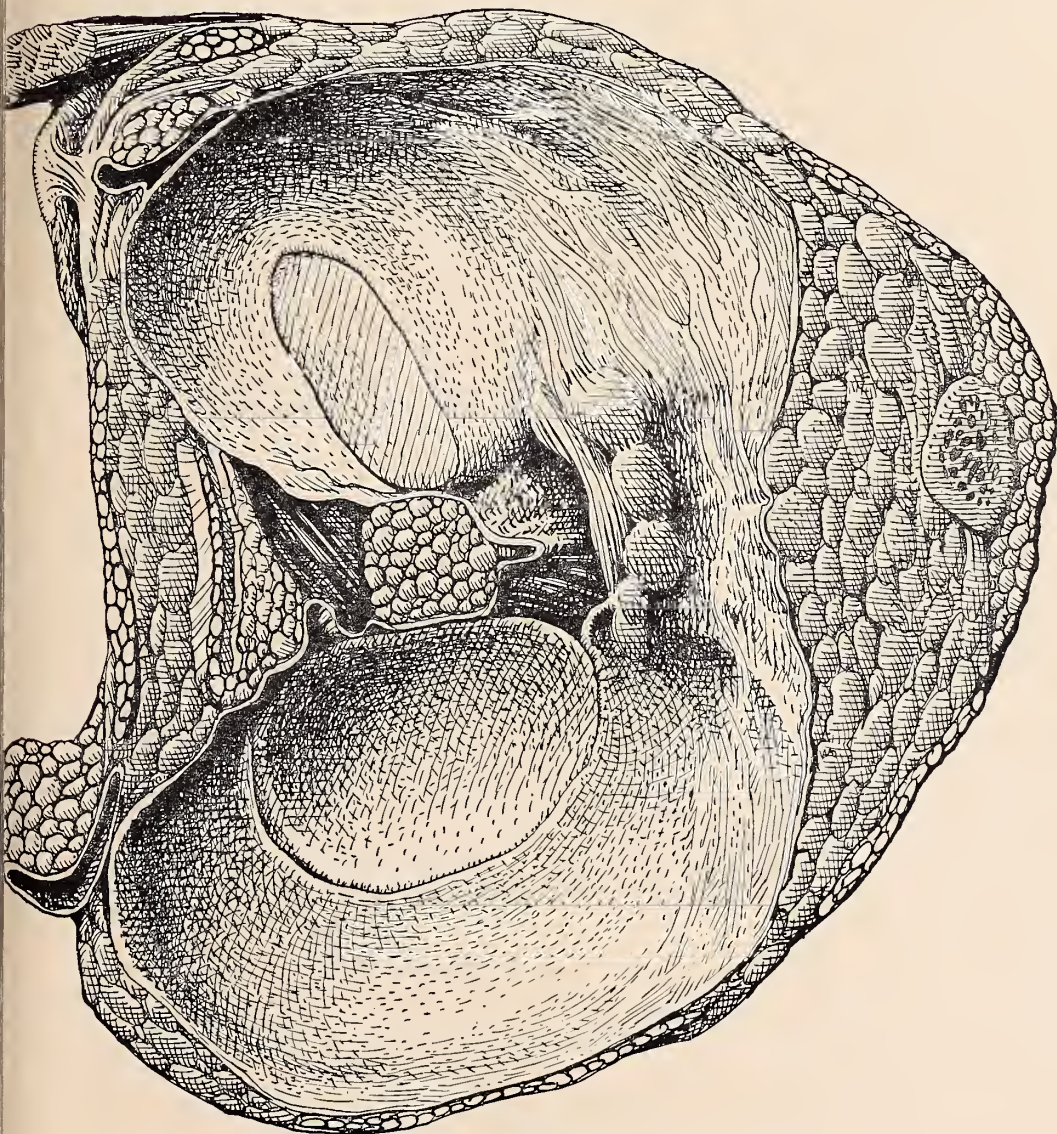
because patients are more than arthritic joints...
controlling inflammatory symptoms is frequently not enough!

Even cortisone, with its severe hormonal reactions, can effectively control inflammatory and rheumatoid symptoms. But a patient is more than the sum of his parts — and the joint is only part of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

*Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy*

Aristocort[®]

Triamcinolone Lederle



(Knee Joint, Left: distal end of femur; Right: proximal end of tibia)

ARISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased appetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional disturbance and insomnia.

ARISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — without the undesirable psychic stimulation and voracious appetite.

Supplied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

 **LEDERLE LABORATORIES** • A Division of AMERICAN CYANAMID COMPANY • Pearl River, New York

Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.
Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Clarence E. Yount, Jr., M.D. Prescott
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D. President-elect
116 N. Tucson Blvd., Tucson, Arizona
W. Albert Brewer, M.D. Vice President
116 Professional Bldg., Phoenix, Arizona
Charles E. Henderson, M.D. Secretary
753 E. McDowell Rd., Phoenix, Arizona
Arthur V. Dudley, Jr., M.D. Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D. Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D. Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D. Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Arnold H. Dysterheft, M.D. Alternate Delegate to AMA
McNary Hospital, McNary, Arizona
Dermont W. Melick, M.D. Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D. Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D. Central District
710 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D. Central District
926 E. McDowell Rd., Phoenix, Arizona
Robert A. Price, M.D. Central District
3602 N. 15th Ave., Phoenix, Arizona
Noel G. Smith, M.D. Central District
3614 N. 15th Ave., Phoenix, Arizona
Ashton B. Taylor, M.D. Central District
461 W. Catalina Dr., Phoenix, Arizona
Leo L. Tuveson, M.D. Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D. Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D. Northwestern District
434 West Gurley Street, Prescott, Arizona
Thomas W. Jensen, M.D. Southeastern District
626 Sixth Ave., Safford, Arizona
Earl R. Baldwin, M.D. Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D. Southern District
1613 N. Tucson Blvd., Tucson, Arizona
Herman S. Rhu, M.D. Southern District
5th Street and Alvernon, Tucson, Arizona
Howard W. Finke, M.D. Southwestern District
Magma Hospital, Superior, Arizona

DIRECTOR AT LARGE

Leslie B. Smith, M.D. Past President
1130 E. McDowell Rd., Phoenix, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1962

APACHE: DeArmond Lindes, M.D., President, Box 272, Eagar;
Jerry T. Clifton, M.D., Secretary, General Delivery, Box
758, Showlow.
COCHISE: James S. Walsh, M.D., President, 631 Ninth St.,
Douglas; Harry C. Smith, M.D., Secretary, 910 Ninth St.,
Douglas.
COCONINO: John H. Caskey, M.D., President, 2725 E. Lakin
Drive, Flagstaff; J. Garland Wood, Jr., M.D., Secretary,
1215 N. Beaver Street, Flagstaff.
GILA: Theodore C. Harper, M.D., President, 703 Ash Street,
Globe; Thomas F. Moore, M.D., Secretary, Box 1207, Miami.
GRAHAM: Bruce N. Curtis, M.D., President, 618 Central Avenue,
Safford; Thomas W. Jensen, M.D., Secretary, 626 Sixth
Avenue, Safford.
GREENLEE: Hugh LaMaster, M.D., President, Box 1597, Clifton;
Howard W. Thomas, M.D., Secretary, Morenci Hospital,
Morenci.
MARICOPA: Jack E. Brooks, M.D., President, 2021 North Central
Avenue, Phoenix; Howard C. Lawrence, M.D., Secretary,
2021 N. Central Ave., Phoenix.
(Society Office — 2025 N. Central Ave., Phoenix)
MOHAVE: Walter Brazie, M.D., President, Masonic Building,
Kingman; John J. Standifer, M.D., Secretary, 412 E. Oak
St., Kingman.
NAVAJO: Leo L. Lewis, M.D., President, 101 S. Williamson St.,
Winslow; Theodore L. Lothman, M.D., Secretary, Box 397,
Holbrook.
PIMA: Delmer J. Heim, M.D., President, 116 N. Tucson Blvd.,
Tucson; Elliott E. Stearns, Jr., M.D., Secretary, 2442 E.
Elm St., Tucson.
(Society Office — 57 East Jackson St., Tucson)
PINAL: Glen H. Walker, M.D., President, 291 W. Wilson Ave.,
Coolidge; James H. Boyd, M.D., Secretary, 291 W. Wilson
Ave., Coolidge.
SANTA CRUZ: Zenas B. Noon, M.D., President, Gebler Bldg.,
Nogales; Charles S. Smith, M.D., Secretary, Gebler Building,
Nogales.
YAVAPAI: Albert O. Daniels, M.D., Box 1311, Prescott; William
R. Shepard, M.D., Secretary, 506 W. Gurley St., Prescott.
YUMA: Abe I. Podolsky, M.D., President, 1601 Fifth Ave.,
Yuma; Ellis V. Browning, M.D., Secretary, 407 16th Street,
Yuma.

COMMITTEES — 1961-62

NOTE: The President, President-elect and Secretary are ex-officio members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE: Paul B. Jarrett, M.D., Chairman (Phoenix); Walter Brazie M.D. (Kingman); Frank A. Shellenberger, Jr., M.D. (Tucson); Paul M. Singer, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Donald K. Buffmire, M.D., Chairman (Phoenix); Preston T. Brown, M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Carl H. Gans, M.D. (Morenci); Roland V. Murphy, M.D. (Tucson); Paul L. Singer, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Arthur V. Dudley, Jr., M.D., Chairman (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Prescott).

EXECUTIVE COMMITTEE: Leslie B. Smith, M.D., President. Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Lindsay E. Beaton, M.D., Past-President, Chairman (Tucson); Carlos C. Craig, M.D. (Phoenix); Francis M. Findlay, M.D. (San Manuel); John F. Stanley, M.D. (Yuma); Oscar W. Thoeny, M.D. (Phoenix); Hugh C. Thompson, Jr., M.D. (Tucson); Florence B. Yount, M.D. (Prescott).

HISTORY & OBITUARIES COMMITTEE: John W. Kennedy, M.D., Chairman (Phoenix); Harold W. Kohl, M.D., (Tucson); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podolsky, M.D. (Yuma); Howell S. Randolph, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: John H. Ricker, M.D., Chairman (Phoenix); John F. Currin, M.D. (Flagstaff); Juan E. Fonseca, M.D. (Tucson); Oscar W. Friske, M.D. (Ajo); Charles P. Neumann, M.D. (Tucson); Robert W. Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Co-Chairman (Phoenix); MacDonald Wood, M.D., Co-Chairman (Phoenix); Derrill B. Manley, M.D. (Phoenix); John S. Carlson, M.D. (Nogales); Ben P. Frissell, M.D. (Phoenix); Paul B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); William B. Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D., Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix); Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: W. Albert Brewer, M.D., Chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: Wallace A. Reed, M.D., Chairman (Phoenix); Jack E. Brooks, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson); Maurice Rosenthal, M.D. (Phoenix); George A. Spikes, M.D. (Douglas).

PROCUREMENT & ASSIGNMENT COMMITTEE: Joseph M. Greer, M.D., Chairman (Phoenix); Robert N. Class, M.D. (Tucson); John F. Currin, M.D. (Flagstaff); Ruland W. Husong, M.D. (Phoenix); Robert M. Matts, M.D. (Yuma); Joseph P. McNally, M.D. (Prescott).

PROFESSIONAL COMMITTEE: Robert B. Leonard, M.D., Chairman (Phoenix); James D. Alway, M.D. (Phoenix); Otto L. Bendheim, M.D. (Phoenix); W. Albert Brewer, M.D. (Phoenix); Orin J. Farness, M.D. (Tucson); Ray Fife, M.D. (Phoenix); Richard B. Johns, M.D. (Phoenix); Earl J. Baker, M.D. (Phoenix); Henry P. Limbacher, M.D. (Tucson); George G. McKhann, M.D. (Phoenix); Herman S. Rhu, M.D. (Tucson); Paul J. Slosser, M.D. (Yuma); Charles A. L. Stephens, M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Ben B. Frissell, M.D., Chairman (Phoenix); Ernest A. Born, M.D. (Prescott); Clyde W. Kurtz, M.D. (Phoenix); William G. Payne, M.D. (Tempe); Harold J. Rowe, M.D. (Tucson); Delbert L. Secrist, M.D. (Tucson); Hugh M. Smith, M.D. (Tucson); Noel G. Smith, M.D. (Phoenix); Albert G. Wagner, M.D. (Phoenix); Roy O. Young, M.D. (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roland F. Schoen, M.D., Chairman (Casa Grande); Robert H. Bullington, M.D. (Phoenix); Howard W. Finke, M.D. (Superior); Charles H. Finney, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Ralph T. Irwin, M.D. (Yuma); Paul B. Jarrett, M.D. (Phoenix); John F. Kahle, M.D. (Flagstaff); J. Edwin Keppel, M.D. (Mesa); Clarence H. Kuhlman, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Clarence L. Robbins, M.D. (Tucson); Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Editor-in-Chief, Chairman (Tucson); R. Lee Foster, M.D. (Phoenix); John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Richard O. Flynn, M.D., Co-Chairman (Tempe); Clarence E. Yount, Jr., M.D., Co-Chairman (Prescott); James E. Brady, Jr., M.D. (Tucson); Richard E. H. Duisberg, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Richard B. Johns, M.D. (Phoenix); Fred H. Landeen, M.D. (Tucson); William H. Lyle, M.D. (Yuma); Arthur R. Nelson, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Edward Sattenspiel, M.D. (Phoenix); Roland F. Schoen, M.D. (Casa Grande); John R. Schwartzmann, M.D. (Tucson); William B. Steen, M.D. (Tucson).

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY



An important announcement
to physicians who prescribe
corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone...8 times more potent than prednisone or prednisolone...28 times more potent than hydrocortisone...and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism—you can obtain all of these benefits with HEXADROL, at marked savings—yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects—or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!

**WOMAN'S AUXILIARY TO THE ARIZONA MEDICAL
ASSOCIATION — 1961-62 Board Members**

President	Mrs. Ian M. Chesser (Lu)
	414 N. Country Club Road, Tucson, Arizona
President-Elect	Mrs. Frederick W. Knight (Mary)
	618 Central Avenue, Safford, Arizona
1st Vice President	Mrs. Clare W. Johnson (Mary Ann)
	(Organization and Membership Chairman)
	318 West Lawrence Road, Phoenix 13, Arizona
2nd Vice President	Mrs. John Kahle (Rosemary)
	(Program Chairman)
	2412 N. Talkington, Flagstaff, Arizona
Treasurer	Mrs. Herbert D. Welsh (Lynn)
	Route 8, Box 18, Tucson, Arizona
Recording Secretary	Mrs. Robert G. Delph (Grace)
	4 West 'D' Avenue, Glendale, Arizona
Corresponding Secretary ..	Mrs. Bernard W. Simons, Jr. (Marjorie)
	3423 East 4th St., Tucson, Arizona
Director (1 year)	Mrs. Robert H. Cummings (Jerrye)
	5830 East Arcadia Lane, Phoenix 18, Arizona
Director (1 year)	Mrs. Robert Keller (Maren)
	1229 Fifth Avenue, Safford, Arizona
Director (2 years)	Mrs. William D. Nelson, Jr. (Ellen)
	2808 Vista Lane, Yuma, Arizona

STATE COMMITTEE CHAIRMEN — 1961-62

American Medical Education Fund	Mrs. Max Costin (Kay)
	2648 E. Fourth Street, Tucson, Arizona
Bulletin	Mrs. B. E. Lambrecht (Lila)
	Box 1837, Miami, Arizona
By-Laws	Mrs. Jesse D. Hamer (Clarice)
	1819 North 11th Avenue, Phoenix 7, Arizona
Chaplain	Mrs. W. Stanley Kitt (Abbie)
	2043 E. Fourth Street, Tucson, Arizona
Community Service	Mrs. Thomas Rowley (Barbara)
	114 South Miller Street, Mesa, Arizona
Convention	Mrs. Melvin W. Phillips (Jean)
	1001 Norris Road, Prescott, Arizona
Civil Defense	Mrs. Paul Jarrett (Beverly)
	501 East Pasadena, Phoenix 12, Arizona
Finance	Mrs. Seymour I. Shapiro (Arline)
	5433 E. 8th Street, Tucson, Arizona
Health Careers	Mrs. Earl R. Baldwin (Betty)
	3320 North Martin Avenue, Tucson, Arizona
Historian	Mrs. Melvin W. Phillips (Jean)
	1001 Norris Road, Prescott, Arizona
Legislation	Mrs. Shaw McDaniel (Eleanor)
	114 East Tuckey Lane, Phoenix 12, Arizona
Mental Health	Mrs. John T. Clymer (Eloise)
	201 West Flynn Lane, Phoenix 13, Arizona
Nominating	Mrs. Robert Cummings (Jerrye)
	5830 East Arcadia Lane, Phoenix 18, Arizona
Parliamentarian	Mrs. John Eisenbeiss (Lucile)
	99 West Northview, Phoenix 21, Arizona

Publications (Newsletter)	Mrs. Hubert R. Estes (Mickie)
	6911 Soyayuna Place, Tucson, Arizona
Safety	Mrs. C. Selby Mills (Vivian)
	1844 E. Keim Drive, Phoenix 16, Arizona
Student Nurse Loan Fund.....	Mrs. Juan Fonseca (Virginia)
	2505 Indian Ridge Drive, Tucson, Arizona
Workshop Advisor	Mrs. Hiram D. Cochran (Mary)
	35 Camino Espanol, Tucson, Arizona

COUNTY PRESIDENTS — 1961-62

Coconino County	Mrs. James Wenzel (Nancy)
	2143 N. Navajo Drive, Flagstaff, Arizona
Gila County	Mrs. Charles Bejarano
	1048 Adonis Avenue, Miami, Arizona
Maricopa County	Mrs. Richard B. Johns (Ruth)
	508 W. Rose Lane, Phoenix 13, Arizona
Pima County	Mrs. Frederick J. Hirsch (June)
	5817 E. Fourth Street, Tucson, Arizona
Yavapai County	Mrs. Donald Merkle (Helena)
	810 Norris Road, Prescott, Arizona
Yuma County	Mrs. Ellis Browning (Olive)
	2200 16th Place, Yuma, Arizona

**SOCIEDAD MEDICA DE ESTADOS UNIDAS DE
NORTEAMERICA Y MEXICO
MEDICAL SOCIETY OF THE UNITED STATES & MEXICO**

President	Dr. Juan E. Fonseca
	601 N. Wilmot, Tucson, Arizona
President-Elect	Dr. Eduardo Contreras Reyna
	Marsella 125 Norte, Guadalajara, Jal., Mexico
Vice-President	Dr. Robert E. Hastings
	1014 N. Country Club Road, Tucson, Arizona
Secretary for the United States	Dr. Charles Kalil
	200 East Monterey Way, Phoenix, Arizona
Secretary for Mexico	Dr. Fausto Zeron Medina
	Avenida Alemania No. 535, Guadalajara, Jal., Mexico
Treasurer for the United States	Dr. Lucy Vernetti
	2021 N. Central Avenue, Phoenix, Arizona
Treasurer for Mexico	Dr. Eduardo Gonzalez Murguía
	Juarez 673, Guadalajara, Jal., Mexico
Exec. Secy for United States	Mr. Byron Browder
	3008 E. 6th St., Apt. D., Tucson, Arizona
Exec. Secretary for Mexico	Mr. Alfredo Patron
	Mazatlan, Sinaloa, Mexico

**COORDINATING COMMITTEE
COMITE COORDINATOR**

Dr. Harry E. Thompson
Dr. Hector Gonzalez Guevara
Dr. Ignacio Chavez
Dr. W. R. Manning

Relieves Anxiety and Anxious Depression



The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets i.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).



WALLACE LABORATORIES / Cranbury, N. J.

DM-6709

Clinically proven
in over 750
published studies

- 1 Acts dependably — without causing ataxia or altering sexual function
- 2 Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
- 3 Does not muddle the mind or affect normal behavior

IN MEMORIA

JOHN H. PAGE
1877-1960

The year is 1910. Arizona is a territory. John H. Page starts a land company. It bears his name.

All lands in Arizona derive from Indian and Spanish cessions, land grants, federal and state sales, and exchanges, land scrip, preemptions, homesteads, desert land entries and patented mining claims.

Transition of government lands into private ownership poses many problems. Conflicts of interest arise. Difficulties may seem unsurmountable. Procedures can be complex. Formalities can take years.

These problems are not abstractions to be taken lightly for these are the problems of people. Some families may have not staked everything they possess. Their futures may be mortgaged. Getting title to the land is crucial to them.

Here are some of the people who come to John H. Page for help:

Into his office walks a dust-covered man. His hands are calloused. He is clearing mesquite and brush so that land may grow food for his family. He comes to John H. Page to help perfect his homestead entry.

Next, comes a man with news that he has dug a well and brought water to the desert. Now it can become productive. John H. Page helps him get title to the land through a desert land entry.

A rancher rides long and hard to town. He needs to get title to his headquarters land. He comes to John H. Page for help in solving his problem.

During the more than half century that John H. Page is active in his company there comes to his office a rancher from practically every ranch in Arizona.

The door of John H. Page Company opens and in walks a hard-bitten prospector. He has found gold at the end of his rainbow. He seeks to protect his discovery. He wants to patent his mining claim. He gets Page's confidential help.

John H. Page helps the most humble and the modest in means as conscientiously and ably as he aids large landowners, the railroads, industrial companies, corporations and the big mining companies.

Though John H. Page is not a lawyer — lawyers come from all over the state to consult with him on mining law. He is recognized as an outstanding authority in this field.

When the door opens, John H. Page never knows who the next caller might be. It may be the Governor, or a farmer, or a United States Senator, or a Congressman or a Mayor, or a state legislator, or a federal, state, county or local government official, or an employee seeking the counsel of John H. Page on many land problems.

He helps restore lands to the Indian tribes. He helps consolidate needed lands in national forests, national parks and monuments.

Civic leaders solicit his help in getting South Mountain Park lands. Mention of this brings up David B. Morgan, who pro bono publico, devoted much effort, work

and time to surmounting all of the problems and technicalities so that Phoenix might have this land for its fine park.

David B. Morgan joins John H. Page in 1918 and continues as his partner for 40 years until 1958 when he retires.

During all of these years, John H. Page and David B. Morgan labor to facilitate the transfer of lands from government into private ownership.

The reader of this memoria may be enjoying the fruits of private ownership because of the labors of John H. Page and David B. Morgan.

A substantial part of what is now deeded or privately owned land in Arizona passes through the John H. Page offices.

Upon these lands food is grown, homes are built, families reared, industries flourish, taxes are levied, cities grow and the economy prospers as the individual develops land into productive use.

Beyond the economic benefits there are the immeasurable values of the satisfactions and the security the individual derives from private land ownership.

Upon this grows civic, moral and spiritual strength.

Upon this rests Arizona's and the nation's basic strength.

Dedicated to these objectives were John H. Page and David B. Morgan.

These are the continuing objectives of we who are the successors in interest in the John H. Page Land Company.

Fred Eldean

FRED ELDEAN, CHAIRMAN

Bob Carlock

BOB CARLOCK, PRESIDENT

JOHN H. PAGE LAND COMPANY 516 LUHRS BUILDING PHOENIX, ARIZONA

COMMEMORATING THE FIFTIETH ANNIVERSARY OF ARIZONA'S STATEHOOD
AND THE FIFTY SECOND OF THE ESTABLISHING OF THE JOHN H. PAGE LAND CO.

Arizona Medical Association Reports Professional Committee

MINUTES — FEBRUARY 11, 1961

Meeting of the Professional Committee of The Arizona Medical Association, Inc., February 11, 1962, Robert B. Leonard, M.D., Chairman, presiding.

ROLL CALL

PRESENT: Doctors Alway, James D.; Baker, Earl J.; Bendheim, Otto L.; Brewer, W. Albert; Farness, Orin J.; Fife, Ray; Johns, Richard B.; Leonard, Robert B., Chairman; Limbacher, Henry P.; McKhann, George G.; Slosser, Paul J.

STAFF: Messrs. Boykin, Paul R., Assistant Executive Secretary; Carpenter, Robert, Executive Secretary; Gundlach, John W., Executive Assistant.

GUESTS: Doctors Farner, Lloyd M., Commissioner, Arizona State Department of Health; Farnsworth, Stanford F., Director, Maricopa County Health Department; Snyder, Bertram L. Messrs. Jurwitz, Louis R., Meteorologist in Charge, Phoenix, U. S. Weather Bureau; McCullough, Orville K., Application Engineer; Carr, Alfred B., Attorney.

EXCUSED: Doctors Rhu, Herman S.; Singer, Paul L., Secretary; Smith, Leslie B., President; Stephens, Charles A. L.; Wormley, Lowell C.; Yount, Jr., Clarence S., President-Elect.

PANEL DISCUSSION ON AIR POLLUTION

George G. McKhann, M.D., Chairman of the Subcommittee on Water and Air Pollution together with Bertram L. Snyder, M.D., Mr. Alfred B. Carr, Mr. Louis R. Jurwitz, and Mr. Orville K. McCullough, presented individual discussions on air pollution in Arizona, accompanied by slides and a moving picture. The Committee was privileged to question each of these, commenting on the problem. The discussion was tape-recorded and will be presented to the Editor of Arizona Medicine with request that it be published for the edification of the membership.

It was moved by Dr. McKhann, seconded by Dr. Brawer, as amended, and unanimously carried that the Professional Committee of The Arizona Medical Association, Inc. feels that the problem of air pollution is of paramount interest to the citizens of the State of Arizona and that the Arizona State Legislature should be encouraged to give the matter its urgent attention.

It was moved by Dr. Farness, seconded by Dr. Brewer and carried that this same panel present their program to the Arizona Medical Association's Board of Directors, The motion was carried, Dr. Slosser being recorded voting in the negative.

MEETING RECONVENED AT 2:15 P.M., THE CHAIRMAN, DR. LEONARD, PRESIDING. ALL MEMBERS PRESENT DURING THE MORNING SESSION RESPONDED "AYE" TO THE ROLL CALL, IN ADDITION TO DOCTORS EARL J. BAKER AND OTTO L. BENDHEIM, WHO ATTENDED ONLY THE AFTERNOON SESSION, AND WITH THE EXCEPTION OF DOCTOR SLOSSER, WHO WAS EXCUSED.

SUBCOMMITTEE REPORTS

Aging

No report was submitted, Doctors Stephens and Wormley not being in attendance.

Cancer and Medical Education

Regarding the establishment of a Central Tumor Registry, Dr. Leonard reported that the American Cancer Society had authorized funds therefor. Pending, is the matter of setting up the registries in cooperation with the State Health Departments and State Hospitals. In all probability, the American Cancer Society will arrange to have a qualified man visit Arizona to establish the registries in order that they may be operated in the most economical and effective way. It is planned to present an exhibit on cancer registries during the scheduled Cancer Seminar, Yuma, Phoenix and Tucson have already proceeded with such registries with the cooperation of most of the major hospitals located in these areas. The interchange of information between hospitals appears currently to be one of the major problems.

Civil Defense and Safety

The resignation of Howard W. Kimball, M.D., as a member of this Committee and Chairman of the Subcommittee on Civil Defense and Safety, was reported filed and accepted. Earl J. Baker, M.D., was appointed by the Board of Directors, December 10, 1961, to fill the vacancy and he has accepted the assignment.

Dr. Earl J. Baker reported the following pro-

Arizona Medical Association Reports

ceedings of the Intra-State Arizona-California Disaster Medical Care Conference. The meeting took place at Mountain Shadows Inn, Scottsdale, Arizona, January 29, 1962, Dr. Leslie B. Smith, presiding. In attendance were Dr. Arthur Lee, Administrative Secretary to Governor Fannin; Mrs. William Vipperman, Jack Jordan, Arizona Legislative Representatives (Civil Defense Committee); Colonel Ralph Redburn, Arizona Department of Civil Defense; Colonel William Eldridge, Maricopa County Civil Defense Department; Dr. C. W. Waldron, Medical Coordinator, Arizona and Maricopa County Civil Defense; Mr. Frank Williams, Arizona State Public Health Civil Defense Liaison Officer; Dr. Earl J. Baker; Dr. Robert Johnson; Dr. Hugh Hull; Dr. William LaJoie, Arizona and Maricopa Civil Defense Medical Committees; Mrs. John Kennedy, Arizona Nursing Association; Eugene Joblane, St. Joseph's Hospital; Mrs. Benjamin Tobias, Good Samaritan Hospital; and Mr. Carl Zimmerman, Arizona Republic. California representatives included Dr. Justin Stein, Chairman, California Governor's Advisory Council on Civil Defense; Dr. Cecil Coggins, Medical Director California Disaster Office; and Dr. Charles Henderson, Chairman of the California Medical Association Civil Defense Committee.

Dr. Solomon Garb, Secretary of Medical Education and National Defense was a guest consultant and Mr. Charles Knerr, Pfizer Pharmaceutical Company Regional Director, was host for the luncheon. Each member commented on his own point of particular interest. Doctor Baker's most vital conclusions were:

1. Arizona has no food, water, or medical stockpile. In final analysis, starvation could be a major problem.

Solution: A. A two weeks' minimum food supply should be stored in every home; the State of Arizona could purchase and store surplus whole grain which has proved to be both edible and nourishing when water is added. The State of California has purchased and stored one-and-a-half million surplus bushels of whole grain. This can be stored for a period of approximately seven (7) years.

B. Drugs should be standardized and strategically stored and rotated. Dr. Baker suggested the formation of a Medical and Pharmaceutical Committee to review this problem

and also to consider the problem of mass immunization.

C. A review of mass disaster feeding and housing seems to be in order.

2. Governor Fannin and the Legislative Committee strongly desire more factual knowledge about just what is expected of them. They expect more from the Federal Government; and, while loathe to do anything too much on their own initiative, they are both anxious to cooperate with any plan or ideas which may be forthcoming. They are both very cautious. Governor Fannin has a good communications system set up, and this is on his own initiative.

3. Tucson has a definite problem. Recently, a Dr. MacDonald, from the University of Arizona painted a pretty dark picture of the situation in Tucson in the event of disaster. This presented a strong scare problem, but solutions to the problem are available and they can be best solved by local thought under the drive and guidance of Dr. Robert Johnson and civil authorities. Dr. Garb presented specific plans for Tucson which are being reviewed by local authorities.

4. Civil Defense Disaster community hospitals have been completely re-identified and surveyed by the Arizona Public Health Department, Mr. Frank Williams in particular. These are to be refurbished with some being relocated, and some new-style Thirty-day Disaster Hospitals have been added. It is felt that an intense effort is necessary to train emergency medical doctors and lay personnel. In California, the American Legion has cooperated in setting them up; and while the Federal Government has estimated that it would take twenty-four hours to set one up, the California American Legion can do it in two-and-a-half hours.

Another aspect of this is the "Orphan Hospital," whereby a large hospital takes one of these disaster hospitals under its wing, so to speak, and during an emergency, it has its own staff. Peripheral Surgical-Medical Teams are in dire need of being reformed and their areas designated. The doctors in such a disaster would be considered as either surgeons or neurosurgeons, without, in any way, taking anything away from other members of the profession. Men such as dermatologists, etc., would have to operate as surgeons, therefore,

Arizona Medical Association Reports

a training program along these lines would have to be instituted.

5. Civil Defense Blood Bank Committee is considered urgent and should be formed. This might be done with the guidance of Dr. John Alsever. Also, an intensive effort should be made to make use of "satellite" resources — these being described as communities outside the immediate area of such a disaster. It is also felt that all long-term prisoners should be blood-typed on admission to prison. Also, a review of combined phosphate buttons (a radiation detecting device) and blood-type bandages is felt to be indicated. Further, it is felt that "Bleeding Teams" should be formed with special emphasis on staffing them with Registered Nurses.

6. JAMA has a summary on Disaster Planning which is considered to be very good. It is felt that these should be obtained and supplied throughout the State of Arizona to concerned Civil Defense committees.

7. A Medical Self-Help Plan is now commencing in Phoenix and on a national basis, which is considered vital for family disaster care. It has been estimated that one-half of the doctors would perish in the event of a disaster. The initial effort would be to have a mass instructor education. Each family should have at least one member skilled in self-help. It is felt that by the pyramiding instruction plan, it would take eighteen months to three years to reach the family level of instruction. This will not in any way replace doctors, but will supplement medical care. It is possible that in view of the mortality expected among physicians, the laity would have to handle many medical needs themselves.

8. Each county medical society should have a reliable Disaster Committee and the State Committee should be enlarged to full regional representation.

9. The Federal Government plans to supply matching funds for School, Hospital, Community Shelter programs. It is suggested that a committee be established with the aid of schools, public and private, and hospital administrators. Several local hospitals have expressed a sincere interest in how they can cooperate on this aspect of Civil Defense.

10. It is further suggested that a portion of the Annual Meeting of the Arizona Medical

Association be assigned to Civil Defense Education Training and the dissemination of knowledge.

11. California has a ten-year medical, practical and legislative experience in Civil Defense. They offered to send this summarization to the Arizona Medical Association. This is a fine piece of work done by Dr. Justin Stein.

12. It is suggested that a standing committee for Arizona-California disaster planning be formed. April 16, 1962, has been projected as a tentative meeting date in San Francisco.

Doctor Baker also reported on the evening session of the Civil Defense meeting, touching the highlights of the points covered. This meeting was taped by the Arizona Medical Association at the request of Dr. Neubauer for future publication in *Arizona Medicine*.

It was regularly moved and unanimously carried that the Professional Committee accept and pass on the recommendations to the Board of Directors.

General Medicine

Dr. Farness reported favorably upon the operations of the Poison Control Centers.

In the matter of rural health, it is the consensus that the problem involves procurement of doctors to serve such areas and it is felt primarily to be the responsibility of the communities involved. The American Farm Bureau recommends that local rural health committees look into this problem in cooperation with State farm bureaus. The cooperation of medicine, of course, will be available should its counsel be sought.

Regarding treatment of tubercular patients, the Maricopa County General Hospital, contained in report of James A. Hamilton Associates, no recommendations are made at this time; likewise, in the matter of the Blood Serum Cholesterol Survey by the College of American Pathologists, no recommendation is made.

In the instance of reporting, submitted by Louis Hirsch, M.D., of Tucson, and George B. Kent, Jr., M.D. of Phoenix, referable to suggested establishment of a state crime laboratory apparently operations on the local level are currently being carried out satisfactorily. No recommendation is made at this time.

Dr. Farness further reported regarding activities of the Medic-Alert Foundation, an organization endeavoring to educate the people to

Arizona Medical Association Reports

the common emergency health problems and providing wrist or neck identification emblems specifying a specific illness of the wearer in order that such individual may be adequately cared for in the event of emergency. It is suggested that the Association may well endorse this effort and its purposes; further, that it may be well to include in Arizona Medicine, an item dealing with its operation.

Richard J. Lescoe, M.D., of Torrance, California, commented regarding radio advertising for the National Foundation for Asthmatic Children with specific reference to the statement or claim that "climate does for asthma (in Arizona) what cannot be done elsewhere."

It was moved by Dr. McKhann, seconded by Dr. Fife and unanimously carried that the entire file be referred back to the Pima County Medical Society and the Foundation itself for their findings and actions.

Hospitals and Nursing

Reporting in the matter of liaison with the Arizona League of Nursing, outlining briefly the functions and accomplishments of this organization, Dr. Limbacher reported on a meeting to be held in Tucson in April. ALN seeks representation from organized medicine. Dr. Leonard advised he would recommend to the President, Dr. Leslie B. Smith, that Dr. Limbacher be appointed to represent this Association at the forthcoming meeting. Further discussion ensued regarding legislation involving both the registered and practical nursing professions, currently introduced into the Arizona Legislature; likewise was discussed a bill providing for the operation of shelter care homes and redefining nursing homes.

It was regularly moved and unanimously carried that the Professional Committee pass these bills on to the Legislative Committee through the Board of Directors, obtaining counsel opinion thereon, if indicated, and urging endorsement of these bills in essence.

Maternal and Child Health

Dr. Johns reported on the results of the polio immunization program recently carried out in Maricopa County.

Fen Hildreth, Commissioner of the Arizona Department of Public Welfare, by letter dated January 5, 1962, seeks assistance of this Association in establishing criteria for the health and medical needs of the children and youth under

twenty-one years of age. The subject was referred to this Committee for consideration. Dr. Johns was instructed to communicate with Commissioner Hildreth and offer every assistance.

Mental Health

Dr. Bendheim reported on legislation providing for certification of psychologists. He stated that the Arizona Psychiatric Association has studied the bill and recommends approval.

It was regularly moved and unanimously carried that the proposed act relating to professions and occupations, providing for the establishment of a State Examining Board in Psychology; requiring the certification of psychologists, etc., be approved and that this recommendation be passed on to the Board of Directors for its further consideration.

It was further reported that WICHE is again sponsoring a program comprising a ten-week course available to physicians practicing without the field of psychiatry. It will commence March 7, 1962. The objective is to bring to such physicians the application of psychiatry within the practice of medicine.

It was moved by Dr. Limbacher, seconded by Dr. Johns and unanimously carried that this committee go on record expressing its approval of the contemplated WICHE course.

Dr. Bendheim reported on the Eighth Annual Conference of Mental Health Representatives of State Medical Associations, held in Chicago, February 2-3, 1962. Arizona is now represented on the eight-man Council by Dr. Lindsay E. Beaton, who was immediately promoted to the position of Vice-Chairman of the Council. He gave the keynote speech at the Conference, which was well received.

The main content of the agenda of the conference was the expression of a great desire on the part of AMA to become as active in the field of mental health as it has been in the past one hundred years in the field of General Medicine. The AMA, for the first time, is sponsoring a Congress this fall at which it expects approximately 2,500 people who are interested in mental health. This Congress will be open to physicians active without the field of psychiatric practice, social agencies, clergymen, etc. The AMA wants sincerely to make up its lack of action in the field of mental health.

In March of 1961, a Joint Commission on Mental Illness and Health (the American Psy-

Arizona Medical Association Reports

chiatric Association and the American Medical Association) published a report, culminating a five-year study; their report was entitled "Action for Mental Health; Relating to this report, one of the things which was emphasized was that "Action for Mental Health" did not emphasize strongly enough the part that private medicine and private psychiatry has played in the mental health field as it is supplemental to State or Federal programs. Doctor Bendheim read resolutions which were passed by the conferees, some in part, others in entirety; they were as follows:

The wording in one portion of the resolutions was changed from "... the cost of mental health must be borne by the public," to read "... the cost of illness is borne by the individual." "It is recognized that a small percentage of the population is mentally indigent; therefore, provisions for their care must be made by the public."

Another portion of the resolutions which was aimed, for the most part, for Blue Cross-Blue Shield, read as follows:

1. "The AMA encourages all insurance carriers to provide benefits for psychiatric illness on par with those for all other ailments."

2. "The AMA encourages all insurance carriers to abandon exclusion of accredited private and specialty hospitals which do not attempt to duplicate other services not essential for their purposes."

3. "The AMA offered services for the accumulation of data on which actuarial tables can be compiled."

The consensus of the Conference committees, and the committee on the whole, was that the burden of taxation for ever-increasing mental health needs, of enlarging state mental hospitals could be greatly decreased. No further construction of state mental hospitals should be encouraged, and enlargement of existing hospitals should cease, and that existing structures be kept to a maximum of 1,000 beds.

It was further requested that state medical associations be ready with a large number of names to be submitted for the purpose of invitations to the Congress of Mental Health to be held in Chicago in October.

It was moved by Dr. Farness, seconded by Dr. Bendheim and unanimously carried that the resolutions as set forth at the Eighth Annual Conference of Mental Health Representatives of

State Medical Associations, as quoted herein (by Dr. Bendheim) be forwarded to the Board of Directors of ARMA, plus the additional comments of Dr. Bendheim.

Rehabilitation — Industrial Health

Dr. Ray Fife reported on the matter of Crippled Children, requesting that the issue be closed. Directive was made, several years ago, authorizing him, as Subcommittee Chairman on Crippled Children to investigate and estimate facilities in existence in the State (and operating in the field of crippled children — rehabilitation) and promulgate listing thereof. Investigation developed that, through Community Council interest, a rather complete tabulation of Phoenix facilities has been compiled in brochure form, listing institutions available. A similar listing and tabulation is available covering facilities in the Tucson-Pima County area.

Locally, at the present time, there is continuing community-wide investigation of facilities in Maricopa County on which report and recommendation is anticipated shortly. The Committee will be kept informed of any specific recommendations developing therefrom.

Venereal Diseases

In the absence of Dr. Slosser, it was directed that the letter received from Jack B. Eason, M.D., Acting Assistant Commissioner of the Arizona State Department of Health, dated December 5, 1961, be included on the agenda of the next meeting.

Water and Air Pollution

With the presentation of the symposium on Air Pollution this morning, Dr. McKhann had nothing further to report except that it is anticipated several bills will be introduced into this session of the Arizona Legislature dealing with the subject.

MEETING ADJOURNED.

Paul M. Singer, M.D.
Secretary

1961-62 ANNUAL REPORT OF THE TREASURER

Enclosed with this report you will find a Statement of Income and Expenditures covering the nine month operation from April 1, 1961 to the close of business on December 31, 1961. This is not the certified audit figure, but it is the figure that the Board of Directors and the Executive Committee worked out on a monthly

Arizona Medical Association Reports

basis. Hereafter, all Treasurer's Reports will be on a calendar year basis. The figures cited in this report are based on the certified audit done by Henry and Horn, Certified Public Accountants, a copy of which is available for your inspection.

In the nine month period, covered by this report, we have received \$47,897.69 or approximately 78% of expected revenues. During the same period, we expended \$104,903.14 or 92% of budgetary items. On the basis of these figures, we suffered a net operating loss of \$57,976.11. This was approximately the figure given the House of Delegates at the last Annual Meeting. During this same period of time, our Cash Position suffered a net decrease of \$76,364.00.

At the last Annual Meeting of the House of Delegates, a budget of expenditures of \$146,037.00 was adopted. This budget was adopted on the basis that the House of Delegates would authorize a \$25.00 dues increase. However, the Reference Committee and in turn the House ordered merely to assess the membership an additional \$15.00 per year. As a result of the decrease in expected revenues, the entire 1961 budget has been re-evaluated and reduced so that expenditures will not exceed the revenues.

Also enclosed with this report is the Budget

of Revenues and Expenditures for 1962. This budget has been based on a dues paying membership of 1100 members. Additionally, this budget is based on a dues of \$125.00 per member. Of the \$125.00, \$10.00 will be set aside by action of the House for donation to AMEF or to the Student Loan Fund as decided by resolution. Additionally, in order to maintain our bulk mailing privileges, it is necessary to assess each member five dollars per year for subscription to "Arizona Medicine." This leaves a balance of \$110.00 per member to operate and maintain the central office, and its subsidiary functions.

Medicine is more and more called upon to render an opinion. It is likewise called upon more and more to actively sponsor and/or support various health measures at the local, State, and National levels. The Arizona Medical Association is your representative. Without this central representation, each and every doctor in the State and Country will suffer, professionally and financially. It is therefore the Treasurer's recommendation that the following resolutions be adopted.

Respectfully submitted,
Arthur V. Dudley, Jr., M.D.
Treasurer

ARMA
BUDGET OF ANTICIPATED EXPENDITURES — 1962-1963

Account Name	1961 (9 months) Expenditures	Anticipated 1962 Expenditures	Anticipated 1963 Expenditures	Remarks
ANNUAL MEETING:				
Meeting Expense	\$ 36.27	\$ 0.00	\$ 0.00	
Travel	2,927.51	3,050.00	4,000.00	Tucson vs. Scottsdale
Telephone & Telegraph	116.36	150.00	140.00	
Mimeographing	450.00	500.00	500.00	
Supplies	595.58	1,100.00	600.00	
Equipment Maint. & Rental	2,753.79	3,000.00	2,500.00	No tent required
Printing	457.25	900.00	500.00	
Postage	230.37	0.00	250.00	
Miscellaneous	882.87	50.00	900.00	Guest gifts, door prizes, Model, etc.
Personal Services	220.00	300.00	200.00	Orchestra
Guest & Staff Expense	6,558.65	6,750.00	6,500.00	Incl. Dinner, Buffet & Receptions
Refunds	164.00	0.00	175.00	
SUB-TOTALS	\$ 15,392.69	\$ 15,800.00	\$ 16,265.00	

Arizona Medical Association Reports

ARTICLES & BY-LAWS COMMITTEE ..	0.00	100.00	50.00	
BENEVOLENT & LOAN FUND	111.86	100.00	100.00	
BOARD OF DIRECTORS	942.99	1,150.00	500.00	
CENTRAL OFFICE ADVISORY	98.03	200.00	100.00	
EXECUTIVE COMMITTEE	261.94	540.00	300.00	
GRIEVANCE COMMITTEE	29.57	100.00	50.00	
HISTORY & OBITUARIES	25.52	100.00	200.00	Directive for Jubilee
INDUSTRIAL RELATIONS	0.00	100.00	10.00	
LEGISLATIVE COMMITTEE	462.65	235.00	500.00	
MEDICAL ECONOMICS	237.26	170.00	250.00	
MEDICAL SCHOOL	70.57	170.00	50.00	
MEDICO-LEGAL	\$ 0.00	\$ 100.00	\$ 100.00	
PROFESSIONAL COMMITTEE	477.60	1,055.00	1,000.00	
PROFESSIONAL LAISON	420.77	1,055.00	1,500.00	Committees on Careers \$1,000
PUBLIC RELATIONS	843.26	1,000.00	2,000.00	Pr Paper, Spkrs, Bur., etc.
SCIENTIFIC ASSEMBLY	203.10	440.00	200.00	
WOMAN'S AUXILIARY	1,000.00	1,000.00	1,000.00	
SUB-TOTALS	\$ 4,735.12	\$ 7,615.00	\$ 7,910.00	
PUBLISHING COMMITTEE				
Salaries	\$ 3,420.00	\$ 4,800.00	\$ 4,800.00	\$400.00 mo.
Payroll Taxes & Ins.	108.60	168.00	140.00	
Meeting Expenses	23.18	40.00	25.00	
Travel	131.00	400.00	165.00	
Telephone & Telegraph	232.94	335.00	325.00	
Mimeographing	5.70	135.00	10.00	
Supplies	96.94	200.00	125.00	
Dues & Subscriptions	42.00	0.00	42.00	
Delivery Service	0.00	15.00	0.00	
Insurance	164.96	165.00	164.96	
Equipment Maintenance	35.00	0.00	35.00	
Printing	18,081.61	31,500.00	26,000.00	
Postage	289.10	600.00	400.00	
Miscellaneous — Other	22.90	70.00	25.00	
Blue Cross-Blue Shield	56.14	97.00	85.00	
Personal Services	954.04	1,200.00	1,275.00	Addressing, Mailing, etc.
General Overhead	3,088.80	4,800.00	4,118.40	\$343.20
Furniture & Fixtures	491.50	0.00	0.00	
SUB-TOTALS	\$ 27,244.41	\$ 44,525.00	\$ 37,735.36	
GENERAL FUND				
Salaries	\$ 30,666.65	\$ 45,380.00		
Payroll Taxes	1,059.59	1,118.00		
Meeting Expenses	18.83	0.00	0.00	
Travel	3,186.71	4,000.00	4,250.00	
Rent	4,853.87	3,741.00	4,472.28	+ possible \$6,000 — C.T.B.
Telephone & Telegraph	1,157.10	1,200.00	1,550.00	
Mimeographing	330.13	250.00	450.00	
Delivery Service	6.00	0.00	0.00	
Supplies	2,528.21	3,000.00	3,500.00	4% increase in prices
Dues & Contributions	76.00	150.00	76.00	
Legal	4,512.65	8,000.00	10,500.00	Past 12 mos.
Insurance	3,033.88	2,977.00	3,033.88	
Equip. Maint. & Rental	637.81	135.00	400.00	7 typewriters tape recorders
Printing	333.89	0.00	450.00	
Postage	1,019.69	1,200.00	1,350.00	
Miscellaneous — other	429.08	70.00	550.00	
Blue Cross-Blue Shield	909.13	1,026.00	1,750.00	+3 employees

Arizona Medical Association Reports

Personal Services	245.46	0.00	325.00
Audit	882.82	650.00	600.00
General Overhead Recovery	(3,088.80)	(4,800.00)	(4,118.40)
Furniture & Fixtures	2,726.65	0.00	200.00
Depreciation	601.56	0.00	800.00
SUB-TOTALS	\$ 56,126.91	\$ 68,097.00	\$ 30,138.76
GRAND TOTALS	\$103,499.13	\$136,037.00	\$ 92,049.12
Plus current Salaries			50,800.00
Plus Payroll Taxes			1,750.00
Plus AMEF			11,000.00
Plus Ariz. Med. Journal			5,500.00
Anticipated TOTAL EXPENSE			\$161,099.12
Anticipated TOTAL INCOME			168,650.00
Anticipated SURPLUS			7,550.88
Staff Salary Increments			3,000.00
Payroll Taxes			100.00
Anticipated GRAND TOTAL SURPLUS			\$ 4,450.88

ARMA
BUDGET OF ANTICIPATED REVENUES — 1962-1963

Account Name	1961 (9 Months) Income	Anticipated 1962 Income	Anticipated 1963 Income	Remarks
GENERAL FUND:				
Membership Dues at \$110.00	\$ 6,045.00	\$ 68,000.00	\$121,000.00	Anticipated 1,100 dues paying members (1958-861) (1959-903) (1960-957) (1961-)
Sale of Supplies;				
(Ins. Forms)	7.50	100.00	30.00	
AMA Commissions — 1%	464.58	275.00	495.00	1,100 members at \$45.00 — \$49,500.00
Interest (Savings Accts.)	911.33	1,200.00	1,000.00	
Miscellaneous	110.61	30.00	100.00	
SUB-TOTALS	\$ 7,539.02	\$ 69,605.00	\$122,625.00	
PUBLISHING COMMITTEE:				
Advertising	\$ 21,693.26	\$ 42,000.00	\$ 29,000.00	1961 are — \$2,410.00 at mo. 1,100 members at \$5.00
Subscriptions	96.00	200.00	5,600.00	
Reprints & Engravings	884.24	2,400.00	1,200.00	
Other — Miscellaneous	354.20	400.00	400.00	U.S. or Mex. Med. Soc. Subscriptions
SUB-TOTALS	\$ 23,027.70	\$ 45,000.00	\$ 36,200.00	
ANNUAL MEETING:				
Exhibitors at \$150.00	\$ 8,400.00	\$ 7,500.00	\$ 7,500.00	1963 Meeting — Tucson
Registrations at \$10.00	3,810.00	3,500.00	3,800.00	
Dinner Dance at \$7.00	1,547.00	1,500.00	1,575.00	
Miscellaneous — Other	312.00	900.00	300.00	
Donations	1,410.25	1,000.00	1,250.00	Request to hold (BC/BS)
Guest Expense Reimbursement	721.80	1,500.00	900.00	Each Society \$150.00 per guest use.
SUB-TOTALS	\$ 16,201.05	\$ 15,900.00	\$ 15,325.00	
GRAND TOTALS	\$ 46,767.77	\$130,505.00	\$168,650.00	
General Overhead Return from ARIZONA MEDICINE	\$ 3,088.80	\$ 4,800.00		

Arizona Medical Association Reports

1961-62 ANNUAL REPORT OF THE CENTRAL OFFICE ADVISORY COMMITTEE

Since the last annual report of this committee, the committee and its chairmen have been vitally concerned with the operation and financial status of the Central Office. A portion of this report, of necessity, is encompassed within the treasurer's report.

In order that the membership may be properly assessed of the problems facing the Central Office, some historical data is necessary. In 1950, the Arizona Medical Association hired Mr. Robert Carpenter on a part-time basis as the Executive Secretary. At that time, there was one full-time person which encompassed the total staff. The membership of the Arizona Medical Association was four hundred and fifty members. In 1953, the Board of Medical Examiners and the Arizona Medical Association came under the same heading, in the sense that Mr. Carpenter and our employees acted in a dual capacity running both organizations. In 1953, with the amalgamation of the two offices, there were approximately twelve hundred members of ARMA or licentiates handled through this office.

As the State grew, so did the Central Office. In 1962, we now have ten full-time employees. There are over one thousand (1000) members of the Arizona Medical Association. Additionally, there are some twenty-two hundred (2200) licentiates (those people who hold a license in the State of Arizona but who practice elsewhere). Whereas in 1950, one person could handle the entire membership and all of the correspondence of the Association. We now find ourselves requiring more than one full-time person, merely to handle the registration of ARMA and BOMEX, that is address changes, correspondence, etc.

In the past twelve years, the Committee assignments of the doctors within the State have been compounded. More and more the doctors of medicine are looked upon to render an opinion. These opinions cannot be properly rendered without thorough investigation by committee members, and in turn, passed upon by the Executive Board and the Board of Directors. Each year we are asked on numerous occasions to state an opinion regarding various pieces of legislation that would affect the practice of medicine in the State. This requires time spent by our legislative committee, and in turn, legal ad-

vice from our counsel. Whether we like it or not, the doctors of medicine are intimately associated with the political and social life of the State of Arizona. The volume of paper work required by these reports has necessitated the hiring of more stenographic personnel within the Central office.

Two years ago, your Board of Directors brought the business management of "Arizona Medicine" into the Central Office which again takes more time and personnel to manage. The entire business management of "Arizona Medicine" is from the Central Office; the editorial staff is maintained in Tucson.

With the Board of Medical Examiners maintained in the Central Office, it has compounded the problems of the Association; however, the Board of Directors, officers, and Executive Staff of the Association feel that it is vitally important that this close liaison be maintained. Mr. Carpenter and Mr. Boykin are direct representatives of both organizations. The Legislature would like to put the Board of Medical Examiners under a lay administration with no control by the doctors of medicine, but this would be extremely detrimental to every doctor who presently is, or in the future would, practice in the State.

The membership, represented by the House of Delegates, must decide if the Central Office is to continue representing them as they are at the present and have in the past. If this is to be the case, additional staff members will be necessary. At the present time, Mr. Carpenter and Mr. Boykin are working seventy to eighty hours per week on a seven day week basis to represent the Association. I do not believe that any of us as doctors expect this of our employees nor our associates; and certainly, we cannot expect it of our Executive Staff in the Central Office. If we continue to demand this work load of the Executive Staff, we will undoubtedly lose two very valued and valuable employees.

The Executive Board, who constitute the membership of the Central Advisory Committee, is attempting in every way possible to economize the operation of the Central Office. The Central Office advisory committee has been assessed of the Treasurer's report, and are in agreement with that report.

Respectfully submitted,
Arthur V. Dudley, Jr., M.D.
Chairman



Team

Each capsule of Panalba* contains two antibiotics that complement each other. They were carefully chosen for this purpose.

Panalba combines tetracycline (for its breadth of coverage) and novobiocin (for its unique effectiveness against staph).

That is why, in most infections of unknown etiology, when you use Panalba as your antibiotic of first resort, your treatment offers excellent chances for therapeutic success.

Upjohn

The Upjohn Company
Kalamazoo, Michigan

Panalba* product information

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules three or four times a day.

Side Effects: Panmycin Phosphate is well tolerated clinically and has a very low order of toxicity comparable to that of the other tetracyclines. Side reactions are infrequent and consist principally of mild nausea and abdominal cramps.

Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyscrasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

*TRADEMARK, REG. U.S. PAT. OFF.
COPYRIGHT 1962, THE UPJOHN COMPANY

DECEMBER, 1961

HOME LOANS

5 ³/₄ %

To buy a home . . .
Refinance your present
one . . .

See Lantz & Co. first
for your home
financing. Chances are
you'll save money . . .
get faster service, too.
Low-cost monthly
payment home loans
for as much as \$40,000
with terms to fit
your needs.

Call or stop in
TODAY!

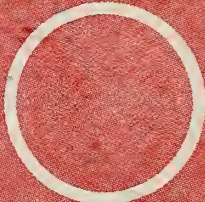


your home loan
can be
arranged quickly.

LANTZ & CO.

655 N. Scottsdale Rd.
SCOTTSDALE

946-5371



In internal medicine, the narcotic of choice for your patients in pain is

DEMEROL[®]

HYDROCHLORIDE

The spasmolytic action of Demerol makes it valuable for relief of symptoms due to smooth muscle spasm, which are often aggravated by morphine.

Demerol is particularly useful in intestinal and renal colic, because its potent pain-relieving effect is accompanied by antispasmodic action on the lower intestine and the urinary tract. In myocardial infarction, Demerol is less likely than morphine to induce nausea.



Winthrop

LABORATORIES
New York 18, N. Y.

Subject to regulations of The Federal Bureau of Narcotics
DEMEROL (BRAND OF NOPERIDINE). TRADEMARK REG. U. S. PAT. OFF.

Long-term effectiveness of METICORTEN continues to be demonstrated in J. G., the arthritic miner whose case was first reported a year ago and who is leading a fully active life today, *after seven years of therapy.*

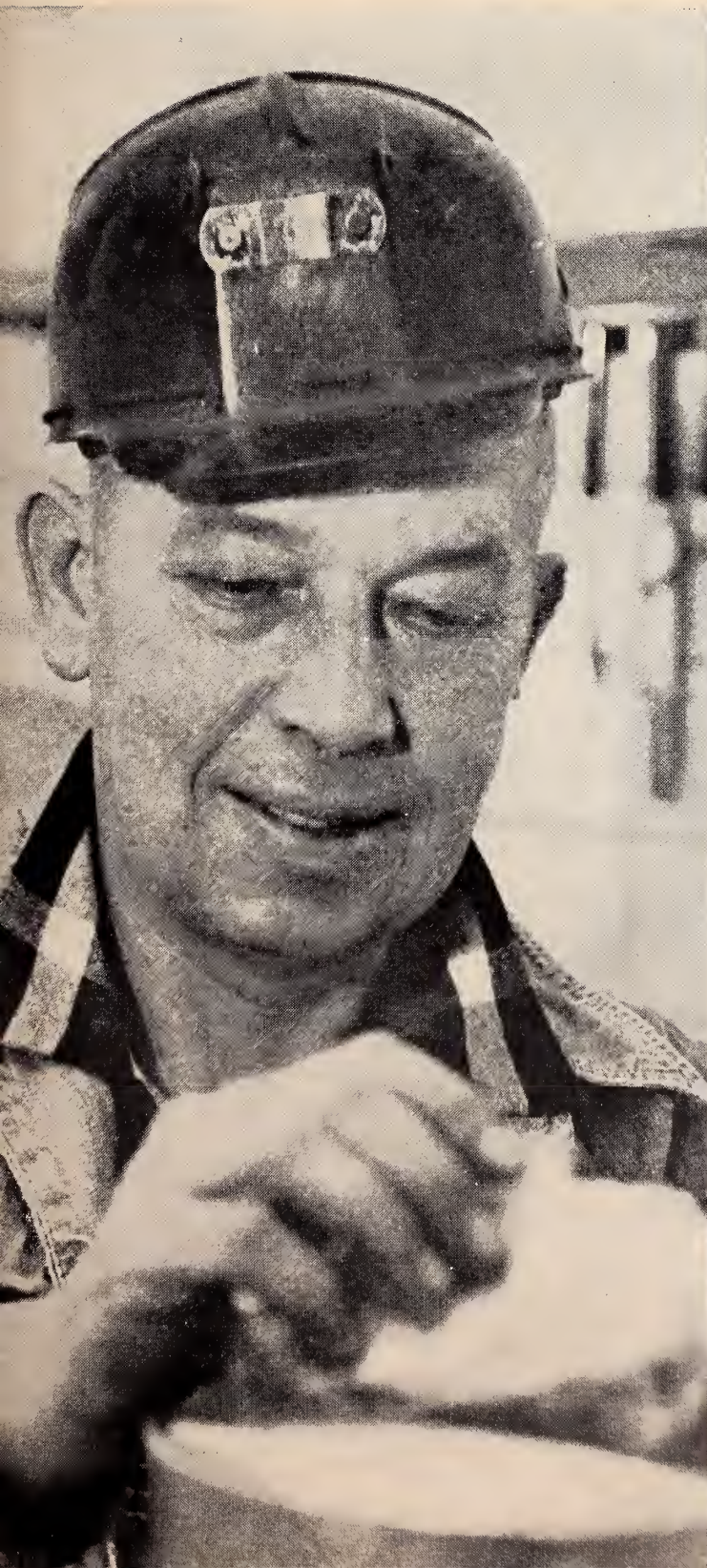
Schering



before METICORTEN—Rheumatoid arthritis commencing in 1949 with severe shoulder joint pain....Subsequent involvement of elbows and peripheral joints with swelling and loss of function....Complete helplessness by 1951 (fed and dressed by wife)....Unable to work despite cortisone, gold and analgesics....Hydrocortisone ineffective in 1954. **since METICORTEN**—Prompt improvement with METICORTEN, begun April 2, 1955....Returned to work that same year....Maintained to date on METICORTEN, 10-15 mg./day, without serious side effects and without losing a day's work at the mine because of arthritis....

Joint pain still controlled and full use of hands and limbs maintained. The foregoing information is derived directly from a case history provided by Joel Goldman, M.D., Johnstown, Pa. Original photograph of Dr. Goldman's patient taken November 10, 1960; follow-up photographs, November 29, 1961. METICORTEN,[®] brand of prednisone. For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

S-010



remember this
arthritic miner,
doctor?
he's still working
after another
successful year
(his 7th)
on Meticorten[®]

brand of prednisone





sign
of
infection?



symbol
of
therapy!

Ilosone® is better absorbed—It provides high, long-lasting levels of antibacterial activity—two to four times those of other erythromycin preparations—even on a full stomach. **Ilosone is bactericidal**—It provides bactericidal action against streptococci, pneumococci, and some strains of staphylococci. **Ilosone activity is concentrated**—It exerts its greatest activity against the gram-positive organisms—the offending pathogens in most common bacterial infections of the respiratory tract and soft tissues.

The usual dosage for infants and for children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. For adults and for children over fifty pounds, the usual dosage is 250 mg. every six hours. In more severe or deep-seated infections, these dosages may be doubled. Ilosone is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

232589



Ilosone works to speed recovery

Host Factors in Relation to the Action of Environmental Carcinogenic Agents

Paul Kotin, M.D.

Hans L. Falk, Ph.D.

This study which is devoted to lung cancer properly points out the multiple etiologic factors probably involved and deprecates the undue emphasis placed on any single agent, such as tobacco. The increased incidence of lung cancer appears to be both real and progressive, and is probably due to a combination of both endogenous and exogenous factors. The latter group includes polluted atmosphere, tobacco smoke and viral infections, and it is to be emphasized that no one of these, on the basis of current evidence, has been proved to be an exclusively major factor. This study concerns itself primarily with air pollution, which certainly must include tobacco smoke, and many significantly interesting observations are recorded.

INTRODUCTION

FOR THE past ten years we have been investigating the pathogenesis of pulmonary cancer. Our approach has been a dual one. First, we studied the pathogenesis of the disease in animals by attempting to induce pulmonary neoplasms and relating them to environmental factors. Second, we simultaneously maintained a close scrutiny on the disease as it is observed in patients admitted to the Los Angeles County Hospital. From an experimental point of view we felt our most significant accomplishment would be the successful induction of pulmonary cancers following exposure to suspected environmental agents. When this was accomplished, we then attempted to synthesize our experimental with our clinical data to determine where compatibilities as well as contradictions might exist.

Epidemiological studies have revealed a world-wide increase in the prevalence of lung cancer(1,2). These investigations effectively demonstrate that a major portion of this increase is real, and at least until very recently, the rate of increase in incidence has been progressive. Certain consistent findings that appear to have significant biological implications are common

to virtually all reports. These findings include: (1) a greater frequency of lung cancer in males than in females, (2) a greater liability to the development of lung cancer in urban residents than in rural residents, (3) an increased incidence associated with a history of prolonged or excessive cigarette smoking, and (4) a temporal pattern of increasing frequency compatible with a possible etiological influence of the influenza pandemic of 1919-1920. These factors point to the need for studies aimed at establishing the specific nature and the etiological significance of the various statistical associations by: (1) identifying any exogenous and endogenous agents responsible for the initiation and progression of the disease, (2) determining the degree of specificity of these agents in producing their effects, and (3) elucidating the biological mechanisms responsible for and compatible with the epidemiological characteristics of lung cancer.

All available evidence strongly suggests that exogenous environmental agents are critically concerned with the pathogenesis of lung cancer. The data further support the thesis that the development of bronchogenic cancer must surely reflect the influence of multiple factors, both endogenous and exogenous. Polluted atmosphere, cigarette smoke, and viral agents appear to be the exogenous factors of primary concern(3). Air pollution are applicable to cigarette smoke as well.

Address presented at the Ninth Annual Cancer Seminar of the Arizona Division, American Cancer Society, January 14, 1961. The work reported here was supported by Grant CS-9156 from the National Cancer Institute of the National Institutes of Health.

University of Southern California School of Medicine, Department of Pathology, Los Angeles, California.

Original Articles

While the three categories are very complex, there are certain characteristics in each that point to specific research directions. Ultimately, it is desirable, if not actually imperative, to evaluate all accumulated information in the light of current knowledge and generally accepted concepts in the area of carcinogenesis.

An indispensable consideration would appear to be the identification of known carcinogenic agents in each of the three areas under suspicion. On the basis of current data, the assumption that these known agents are the exclusive or necessarily even the major factors responsible for human lung cancer is unwarranted. Regrettably perhaps, research in this area must initially be limited to the carcinogens that have already been identified. Even with these traditional carcinogenic agents, the modifying effect of numerous factors must be weighed if data are to be interpreted meaningfully. First, carcinogens of differing structure from single or multiple sources can, in a manner unelucidated as yet, act by: (1) summation of their carcinogenic potencies, (2) mutual inhibition of carcinogenic activity, or (3) synergistic enhancement of their biological effect. Second, and particularly pertinent to lung cancer development are such major considerations as the concentration and stability of carcinogenic agents in the environment, their physical properties (particle size and structure), and intensity of exposure (dose) of populations at risk.

The presence of a carcinogenic agent in our environment does not alone insure a biological effect. Frequently, the action or effect of associated nonspecific agents, i.e. noncarcinogens, may be crucial in determining whether a carcinogenic agent may exert an effect. The nonspecific effects may include systemic attenuation of host defenses, alterations in epithelial structure, or disturbance in the intracellular environment. This area of effect will be discussed in detail.

I shall first describe the experimental approach and method used in our laboratories for the investigation of the role of air pollution as it may be implicated in the etiology of lung cancer.

The data to be presented will be primarily related to the study of polluted urban air as a source of environmental carcinogenic agents with possible etiologic significance in the increasing incidence of human lung cancer. With perhaps few exceptions, the data in relation to

EXOGENOUS FACTORS

(1) *Carcinogenic agents have been identified in the polluted air of essentially all cities in which they have been sought.* The materials identified include aromatic polycyclic hydrocarbons (APH), aliphatic hydrocarbons and their oxidation products, and specific inorganic substances such as chromium and nickel compounds. Perhaps the most ubiquitous of the carcinogenic agents belonging to the APH group of chemicals is the carcinogenic agent, 3,4-benzpyrene. It and associated hydrocarbons are emitted into the air from many sources including gasoline and diesel engine exhausts, dust incidental to rubber wear, tear, and degradation, and, in certain areas, soot from specific industrial effluents in the use and manufacture of coal tar and its derivatives.

In addition to the previously known carcinogenic agents belonging to the group of APH, we have characterized several heretofore unidentified hydrocarbons in polluted air belonging to the group of fluoranthene derivatives. Of these, 3,4-benzfluorathene has resulted in a significant tumor yield in C57 Black mice following painting and subcutaneous injection.

The aliphatic materials are primarily introduced into the atmosphere as a result of pollution by raw gasoline vapors. These vapors under certain meteorological conditions react in the presence of sunlight and oxides of nitrogen to form a broad spectrum of hydrocarbon oxidation products. These agents have become significant atmospheric pollutants simultaneous with intensive industrialization. Their temporal presence coincides with the epidemiological increase in lung cancer. They are capable of direct cellular entry, and thus the necessity for concern with the mechanisms relating to the elution of APH from soot is obviated. As lung cancer, in common with all neoplastic diseases, must surely have many agents involved in its inception, the simultaneous or sequential action of both the traditional carcinogenic APH and the aliphatic oxidation products in the pathogenesis of lung cancer is a reasonable possibility. Chromium and nickel through present only in infinitesimal amounts must also be considered by virtue of the occupational and/or experimental data that incriminate them as carcinogenic agents.

(2) *The stability and survival of carcinogenic hydrocarbons in the atmosphere are compatible with the postulated biological effect.* Exposure of

APH absorbed on soot to air, light, and smog followed by analyses for the absorbed hydrocarbons shows different rates of destruction for each. These fit into a pattern consistent with an explanation for the differences in the hydrocarbon composition of polluted air when contrasted with the hydrocarbon composition in the emissions at the pollutant site. The carcinogenic hydrocarbon, 3,4-benzpyrene, belongs to the group with maximum relative stability. The destruction of APH in the atmosphere indicates that their stability is consistent with survival in the atmosphere for sufficient periods to be respired by exposed populations. Even in the presence of a strong oxidizing atmosphere, such as occurs in characteristic Los Angeles smog, the rate of destruction of 3,4-benzpyrene is lower than that of many other hydrocarbons. In other areas where this atmospheric property is less significant, the stability should be markedly greater.

(3) *Bioassay has established the carcinogenic properties of the compound identified in and extracted from polluted air.* Extracts of the APH fraction of the atmosphere have produced skin cancers and mesenchymal sarcomas following painting and injection in representative mouse strains. Similarly the APH-free, aliphatic hydrocarbon fraction has resulted in skin cancers and subcutaneous sarcomas after painting and injection.

For use in inhalation studies on mice and rats, the oxidation products of aliphatic hydrocarbon fraction of polluted urban air was reproduced in our laboratories by means of reacting gasoline or individual pure straight chain hydrocarbons with oxides of nitrogen in the presence of ultraviolet light or reacting the hydrocarbons directly with ozone. The resulting aerosol was then introduced in inhalation chambers under rigidly controlled conditions for the purpose of determining its capacity to induce pulmonary tumors in the exposed species. Strains of mice with contrasting spontaneous lung tumor incidence and contrasting susceptibility to respiratory tract carcinogenic agents were exposed. Rats with a spontaneous pulmonary incidence of less than 1% were also used. Significant levels of pulmonary tumor induction in all the species studied were obtained.

(4) *Alteration in function and structure of the respiratory epithelium of representative mam-*

ian species has been demonstrated following exposure to a broad spectrum of environmental irritants. These changes facilitate the deposition and retention of particulates through interference with the normal pattern of mucous secretion and physiologic activity of the ciliated cells. A series of sequential changes have been observed both in vitro and in vivo. (a) An apparent purposefully exaggerated activity of ciliated cells and goblet cells is the initial response of the respiratory epithelium to the deposition of foreign particulate irritants. (b) Persistence of the insulting agents rapidly leads to a neutralization of the protective factors, with resultant slowing of particle movement; this, in turn, leads to progressive accumulation of particles at selected sites in the respiratory tract. (c) A demonstrable difference in the effect on the epithelium can be observed, depending upon whether the respired material directly impinges on or passively flows over tracheobronchial epithelium. In the instance of the former, the effect is more intense and of greater duration. (d) Reversibility of the adverse effect of atmospheric environmental agents persists for an unanticipatedly long period; although restoration to base line levels of activity seldom occurs. (e) Denudation of the superficial epithelium permits the immediate apposition of inhaled particulate carcinogenic matter to the persisting layer of basal cells, which presumably may give rise to hyperplastic, metaplastic, and ultimately neoplastic change. Accompanying the changes in rate of mucous flow are equally significant alterations in the physical and chemical properties of the mucus.

(5) *Carcinogenic agents and respiratory irritants occur in the atmosphere in a physical state that is compatible with a biological effect on exposed intact host.* The carcinogenic APH are present in polluted air in a state of adsorption on soot particles occurring in a size range compatible with the inhalation, deposition, and retention of a portion of the breathed carcinogen-laden particles on the respiratory epithelium. The aliphatic hydrocarbon carcinogens and the nonspecific irritants are found as aerosol droplets which similarly lie within the size range consistent with inhalation and epithelial deposition. The anatomical site of deposition is a specific reflection of the size of particles. The relative infrequency of primary tracheal carcinoma is perhaps, among other factors, the re-

Original Articles

sult of the rarity of particle deposition on the tracheal epithelium. Those particles destined, on the basis of their size, to settle on tracheal epithelium are the ones that do not readily pass beyond the nose, accessory nasal sinuses, and pharynx. Further, the absorptive bond between particles settling on the bronchial and bronchiolar epithelium and the carcinogenic hydrocarbons is such that elution of the latter can readily occur in the presence of tissue and plasma proteins.

(6) *Soot recovered from human lungs has been shown to be free of the carcinogen, 3,4-benzpyrene*(4). Pyrene, although demonstrable, is present in significantly less than anticipated amounts. A gradient of disappearance exists, varying from partial in the case of pyrene to total in the case of 3,4-benzpyrene. The difference between the total disappearance of the carcinogen, 3,4-benzpyrene, and the partial disappearance of the noncarcinogen, pyrene, may be a reflection of the carcinogenicity of the former and innocuousness of the latter.

A synthesis of the findings described suggests that the carcinogenic implications of polluted atmosphere reside in at least two indispensable links in the pathogenesis of lung cancer. The first and most obvious is the environmental presence and the host entry of agents proved experimentally to be carcinogenic and epidemiologically to be associated with an increased liability to the development of lung cancer. The second factor relates to the occurrence in the atmosphere of host-modifying factors that, by virtue of their effect on the ciliated mucus-secreting epithelium of the tracheobronchial tree, facilitate the abnormal deposition and retention of particulate matter in the lungs. In the instance of the carcinogenic APH, the elution of 3,4-benzpyrene and 3,4-benzfluoranthene by host proteins from soot particles is thereby facilitated. A significantly high local concentration of desorbed carcinogens results. Atmospheric irritants may, in addition, periodically and intermittently cause denudation of the superficial epithelium so that the basal cell layer is directly apposed to the carcinogenic stimulus. This periodic epithelial desquamation and regeneration in the presence of an abnormal growth stimulus are regarded as providing a favorable environment for subsequent abnormal growth patterns.

ENDOGENOUS FACTORS

(1) *Sexual factors.* In all epidemiologic studies it has been shown that man is at greater risk to the development of lung cancer than is woman. Prophecies were made that independent of whether cigarette smoking or air pollution alone or together were responsible for the increased incidence of this disease a difference existed in past environmental exposure by the sexes and further, incidence would become narrowed in the future as exposures and experiences of the two sexes approximated each other. As women smoked more and became more universally employed, this prognostication has not materialized. As a result, we thought perhaps that like so many neoplasms of sexual and accessory sexual organs where there is an obvious explanation for differences in incidence, we might find a sexually based difference in a visceral cancer such as a pulmonary cancer. I have placed great emphasis on the particulate nature of the carcinogenic agents in our environmental milieu and the necessity for these environmental agents to get into the respiratory epithelial cells or other target cells. We exposed mice and rats to particulate matter under normal conditions and following modification of their sexual state. Males and females were gonadectomized. Males were hyperestrogenized and females were hyperandrogenized. Our data suggest that the cell membrane may be as much a sexual characteristic as is the histology of the gonads. The particulate entry rate of particles through cells is apparently among other things related to the steroidal state. Through the use of fluorescence or radioisotope techniques we were able to show that the rate of entry of particles through the cells of the male, all other things being equal, is greater than that seen in the cells of a female. These studies were done in mice and rats. I must emphasize that these are the only two species we studied experimentally. I wish to submit this as one attempt to delineate the basis for the male-female difference in incidence of lung cancer inasmuch as the passage of time is apparently not providing the answer that we had anticipated in terms of difference in exposure representing the difference in incidence.

(2) *Metaplasia and site of origin.* There were several other factors that we were concerned about in attempting to relate epidemiological data to the natural history of the disease in

specific patients in our experimental work. We are able to induce metaplasia at will in the respiratory tract of animals exposed to particulates and irritants. The metaplastic response was a wholly nonspecific one. In terms of the human disease, data indicate that persons exposed to the two large areas of suspension, polluted air and cigarette smoke, have a higher incidence of metaplasia than those patients who do not have this history of exposure. Cowdry(5) in his studies at Washington University in St. Louis was the first to point out that the incidence of metaplasia is maximum in those portions of the respiratory tract where cancer of the lung virtually never occurs, except that metaplasia is more common in exposed individuals than nonexposed individuals. Within this group of exposed individuals metaplasia is most common in the trachea and in the proximal portions of the main stem bronchi immediately below the coryna. The trachea is rarely a site of cancer origin, and recent studies indicate that pulmonary cancers when seen early have a more peripheral site of initiation than believed when only autopsy material was available for study.

If our concept of particulate deposition as the source of the carcinogen has any meaning at all, the traditional concepts of central origin of virtually all pulmonary cancer would be incompatible. Instead of autopsy material, specimens removed at surgery were studied. As Dr. Liebow of Yale has observed, pulmonary neoplasms are now being seen at an earlier date in their evolution and further they are currently being seen more by the surgeon than by the pathologist. We are able to confirm that a progressively greater number of pulmonary neoplasms appear to originate more peripherally in the tracheobronchial tree.

(3) *Histology*. The literature is replete with statements that squamous cancer of the lung is an environmental cancer. Adenocarcinoma of the lung is an endogenous, idiopathic neoplasm. The concept that morphology consistently represents etiology is anathema at best to a pathologist. The doubt is consistently raised that since you really have not produced squamous cancers in animals, you have not produced the human type of cancer. Therefore how meaningful is a mouse or rat cancer? I would submit that it is as meaningful as any experimentally induced neoplasm. Nevertheless a study was begun to determine how valid the concept is that squamous cancer

is the environmental cancer and the others, particularly adenocarcinoma, are the endogenous cancers.

In a paper *The Journal of the National Cancer Institute* Dr. Herman(6) of the Los Angeles County Hospital and University of Southern California Department of Pathology it appears on the basis of over 900 cancers seen at the Los Angeles County Hospital that the predominant group of lung cancers are adenocarcinomas, not squamous carcinomas. The slide material was reviewed by a large group of pathologists with specific interests in lung cancer, and the findings have been verified. The difference in Dr. Herman's data resulted from the utilization of histochemical techniques which demonstrated what I think all pathologists will readily accept, that uniformity of histopathologic pattern in a neoplasm occupying several centimeters in space is a rarity. Even in those specimens where a predominant pattern of one type or another could be shown, histochemical studies showed that the cells of origin could not readily be determined on the basis of histopathological pattern alone. These findings perhaps tend to increase the significance of the adenocarcinomas we have been able to induce in mice by inhalation. Secondly, they support the concept that morphology does not reflect etiology in neoplastic states.

In experimental carcinogenesis there are certain basic concepts. First, all other things being equal, a carcinogen-induced neoplasm should appear at an earlier date than neoplasms that are not induced, that is, spontaneous. Secondly, they should appear at a greater rate. Studies by Professor Passey in several hospitals in Great Britain, more recently studies by Umiker and French (7) utilizing autopsy and surgical material at the University of Michigan Hospitals, and our own data indicate that squamous cancer (the presumed carcinogen-induced one) does not occur earlier than adenocarcinoma. In the recent report of Umiker and French an analysis of their last 121 patients with lung cancer revealed that only 1 of 38 squamous cancers was found in a man under 50 years of age. For squamous cancers in toto, the mean age of diagnosis for patients was 62.3 years of age, with 57.4 years for adenocarcinomas, 58 for fully differentiated tumors, and 57 for undifferentiated tumors. Not only do squamous cancers not occur earlier, they in fact occur later. I quote these figures specifically because

Original Articles

while they are not ours, they are essentially in agreement with data we have.

(4)*Incidence.* Studies of the epidemiology of lung cancer in relation to environmental factors have justifiably resulted, I believe, in what Clemmesen (8) termed the advent of a pandemic. In a series of three papers published in the *Danish Medical Bulletin* from 1950 to 1952 using cohort studies Clemmesen predicted an accelerating rate of incidence for lung cancer during the next several decades. This would be understandable if any of the environmental sources under incrimination, polluted air or cigarette smoking, were the sole carcinogenic factors. In essence, continued exposure to exogenous carcinogenic agents is compatible with this pattern of lung cancer if evaluated in light of traditional concepts of carcinogenesis. In a report of the British Ministry of Health published earlier this year it was noted that, "The death rate from cancer of the lung and bronchus is still rising though not to the same extent in each age group. In men aged 65 and over the rate of increase has been comparatively uniform since about 1930, but below that age the rate has progressively slowed from older to the younger age groups until in men under the age of 50 mortality became stabilized about 1948 and in men of 50-54 some six years later." In other words, there has been no increase in the incidence of lung cancer in the age group 50-54 in people reaching that age since 1954. In the age group 55-59, the period of maximum incidence, there has been no increase in incidence for the last three years.

Now, this is meaningful only in terms of recognizing the long latent period generally ascribed to environmental cancers. In pulmonary cancer the best guess is that the sum total of effect exerted over a period of two decades, give or take a few years, represents the latent period. We are now seeing a leveling off of incidence at a time when exposure to the presumed carcinogenic stimulus was at its period of maximum increase, independent of whatever the carcinogenic source might have been. This trend is further recognized by Gilliam (9) who noted, "Although it should be obvious, it is not generally appreciated that a mortality rate not only will not continue to increase but cannot even be maintained indefinitely in the face of a decreasing rate of increase." After presenting his data, he further states, "No matter what method of

projection is employed, a peak with subsequent decline *must* follow a declining rate of increase."

Whether you accept residence in an urban, polluted atmosphere for several decades on the basis of studies of Eastcott, (10) Cunningham, (11) Dean, (12) or Mancuso (13) or cigarette smoking of two packs a day for 20 years on the basis of studies by Hammond and Horn (14) or Doll and Hill, (1) the findings are similar in that there is a limited attack rate. In smokers of cigarettes where it is possible to delineate a population the maximum incidence is 10-12%. This could be interpreted on the basis used for infectious disease. An influenza epidemic, for example, does not attack 100% of the exposed population. But when one considers, and this is really the only valid analogy we have, occupational cancer as the basis for studying tumor-dose response in man, we find that whether it is bladder cancer in relation to aromatic amines, pulmonary cancer in the miners of Joachimsthal, or lung cancer in the gas coke retort workers in Great Britain and Japan, in the populations exposed, assuming that the dose is constant, there is a leveling off at an attack rate of 75-80% rather than at the 10-15% seen in cigarette smokers.

Now what does all this mean? In terms of pulmonary cancer and especially its prevention it means that independent of which of the two environmental sources that are now suspect is removed, we may properly anticipate a reduction in pulmonary cancer. I would submit, however, that since pulmonary cancer must at present look to prophylaxis as its major method of control, we may have to seek out another environmental source as a possible carcinogenic hazard. I am beginning to think that with the leveling off of the incidence we perhaps have been too glibly dismissing, among other things, the influenza pandemic of 1918-1920. This was a one shot affair. It was an incident characterized, among other things, by a proliferative effect on pulmonary tissue. If hyperplasia and metaplasia have preneoplastic significance at all, the hallmark of the influenza effect on the lung could very well represent one possible additional factor.

CONCLUSION

Recognition and acceptance of the concept that multiple factors are probably concerned with the initiation and promotion of lung cancer pose several problems to the experimentalist.

First, and most crucial, is the necessity for elucidating a stepwise or sequential series of events which is compatible with the role for the several environmental agents statistically associated with increased risk to the disease. Second, the links in the chain of events, if valid, should be capable of clinical correlation. We are aware of nothing which indicates, let alone proves, mutually exclusive roles for all suspected agents in any given case of lung cancer. The order of magnitude of each may vary, and methods for quantitating the relative contribution of any or all suspected factors have not been developed as yet. Lung cancer is seen in rural as well as urban residents and in smokers and nonsmokers.

Bronchogenic carcinoma represents one of the current critical problems in the field of pulmonary disease. Laboratory investigation can contribute much information to the ultimate solution of this problem. In the physical science area, finite analytical data are possible. In the biological realm, strong supporting data can be secured despite the fact that experimental investigations are necessarily limited to nonhuman animal species. It is necessary, of course, to remember certain deficiencies inherent in the biological studies. Choice of species, selection of appropriate animal strain, duration of exposure, concentration of test material, and routes of administration are all variables that modify the extrapolation of experimental data from other animals to man. Despite these shortcomings past experience has shown a high index of meaningfulness of animal experiments for the human species. The broad spectrum of agents carcinogenic for visceral organs in experimental animals

and apparently for those in man should make one proceed with caution in attributing the absolute dominance of any one agent over another.

Epidemiologically, a reduction in lung cancer incidence may be properly anticipated as a result of reducing the concentration of any of the environmental factors discussed. It is our belief, however, that the reduction would be of a low order of magnitude in the absence of the removal of the remaining sources of irritants and carcinogenic agents from the respiratory environment. To expect a qualitative reduction equal in number to the percentage showing statistical association to any given agent is unwarranted.

REFERENCES

1. Doll, R. and Hill, A. B.: Study of aetiology of carcinoma of lung. *Brit. M. J.* 2:1271-1286, 1952.
2. Kotin, P.: The role of atmospheric pollution in the pathogenesis of pulmonary cancer: A review. *Cancer Res.* 16:375-393, 1956.
3. Kotin, P. and Falk, H. L.: Role and action of environmental agents in pathogenesis of lung cancer. I. Air pollutants. *Cancer* 12:147-163, 1959.
4. Falk, H. L.; Kotin, P.; and Markul, I.: The disappearance of carcinogens from soot in human lungs. *Cancer* 11:482-489, 1958.
5. Cowdry, E. V.; Suntzeff, V.; and Ide, G.: Comparison of histopathology of bronchial and tracheal epithelium of smokers and nonsmokers. (Abstr. in Program) Seventh International Cancer Congress, London, July 6-12, 1958; p. 152.
6. Herman, D. L. and Crittenden, M.: Distribution of primary lung carcinomas in relation to time as determined by histochemical techniques. *J. National Cancer Inst.*, 27:1227-1271, 1961.
7. Umiker, W. and French, A. J.: Bronchogenic carcinoma. A second look at cell type. *Cancer* 13:1053-1061, 1960.
8. Clemmesen, J.: Danish Cancer Registry Publications, 1943-1957.
9. Gilliam, A. G.; Milmore, B. K.; and Lloyd, J. W.: Trends of mortality attributed to carcinoma of the lung. The declining rate of increase. *Cancer* 14:622-628, 1961.
10. Eastcott, D. F.: The epidemiology of lung cancer in New Zealand. *Lancet* 1:37, 1956.
11. Cunningham, G. J. and Winstanley, D. P.: Hyperplasia and metaplasia in the bronchial epithelium. *Ann. Roy. Coll. Surg. Eng.* 24:323-330, 1959.
12. Dean, G.: Lung cancer among white South Africans. *Brit. M. J.* 2:852, 1959.
13. Mancuso, T. F. and Coulter, E. J.: Cancer mortality among native white, foreign-born white, and nonwhite male residents of Ohio: cancer of lung, larynx, bladder, and central nervous system. *J. Nat. Cancer Inst.* 20:79-105, 1958.
14. Hammond, E. C. and Horn, D.: Smoking and death rates — report on 44 months of follow-up of 187,783 men. II. Death rates by cause. *J.A.M.A.* 166:1294-1308, 1958.

NEW AND NONOFFICIAL DRUGS 1962

The Council on Drugs, American Medical Association, announces the publication of the 1962 edition of *New and Nonofficial Drugs*. The volume is available from the J. B. Lippincott Co., East Washington Square, Philadelphia 5, Pennsylvania. Price \$4.00.

Bronchogenic Carcinoma - A Challenge to the Medical Profession

H. Corwin Hinshaw, M.D.

Deaths from lung cancer have increased 1000 per cent from 1930 to 1960. The epidemiology of bronchogenic carcinoma therefore provides a challenge which is not at present being met.

The cause remains unknown, although carcinogens are suspected particularly in cigarettes and by-products of combustion within our environment, emanating from auto exhaust and factory smoke.

Results of treatment vary with type of tumor and stage of growth. Well differentiated epidermoid (squamous cell) tumors which have not spread are curable in 50-70% of cases. Small cell undifferentiated cancers are usually incurable at all stages.

More attention is needed to detect lung cancer, utilizing to the utmost all available facilities and methods of diagnosis.

Physicians should be made more aware of the problem and alerted against the leading cancer in man.

NO PHYSICIAN can avoid becoming concerned about the problems of bronchogenic carcinoma when he realizes some of the startling facts about this disease. We are in the midst of an epidemic — quite unlike anything in the history of medicine — for this disease is increasing in a geometric manner and there is no hint that relief is in prospect. *In the United States deaths from lung cancer have more than doubled every ten years.* The American Cancer Society states that between 1930 and 1960 deaths from lung cancer have increased by one thousand percent while deaths from all other cancers have increased only about fifty percent. This condition has come to be the most common malignant disease of the male sex and it soon may outstrip all causes of death in middle aged men. About 36,000 persons died of lung cancer in 1960, 11,000 died in 1945 and only 2,500 died in 1930. The American Public Health Association estimates that, if present trends continue, about one million children now in school will die of lung cancer before they reach the age of 70 years. The epidemiology of bronchogenic carcinoma provides a challenge which has not been met.

The causes of lung cancer are surely multiple. This appears to be an evil of *civilization* and one of awesome destructive power. *There are reasons*

to believe that lung cancer is a social problem — surely it is more common among city dwellers than among country dwellers and it is much more prevalent among those who smoke cigarettes excessively. Many believe that the products of combustion from our automobiles, our factories and our cigarettes contain carcinogenic materials adequate to explain our present plight. Other experts, equally scientific but less frequently quoted, argue that city dwellers and compulsive smokers are different in many ways from country dwellers and from those who have never smoked habitually. Doctor Joseph Berkson, the noted medical statistician, has suggested that anyone with strength of character sufficient to escape the blandishments of the cigarette advertisers should have no difficulty in escaping cancer. (1)

Bronchogenic carcinoma is a disease of men, several males dying of this disease to every female. Rates are increasing among women but they are increasing even more rapidly among men.

These facts of sex distribution, association with personal habits and with place of residence are of great diagnostic significance, quite apart from their etiological implications. Thus we are able to know who is at greatest risk and we have reasonably accurate means of detecting lung cancer.

Radiologic examination of the lungs is much easier to accomplish than are radiologic examina-

Presented before the Scientific Assembly, The Arizona Medical Association, The Safari Hotel, Scottsdale, Arizona, April 27, 1961.

Clinical Professor of Medicine, University of California School of Medicine, San Francisco, California.

tions of other viscera. While detection of abnormalities is relatively simple the identification of these abnormalities is often exceedingly difficult for the radiologist. There are often no clues to tell him whether a mass is of inflammatory or neoplastic origin, whether or not a segmental or lobar consolidation is or is not due to an obstructing bronchial carcinoma and too frequently the earliest shadows of lung cancer are hidden by shadows of normal structures.

Bronchoscopy has become a highly developed art and has advanced our knowledge of lung pathology. With the bronchoscope and its various attachments, prisms and lenses it is possible to inspect and study thoroughly virtually every square millimeter of mucosa from the larynx to the openings of the twenty segmental bronchi. Throughout most of this area it is possible to obtain biopsy specimens for precise microscopic examination. Despite these facts, many carcinomas escape detection by the bronchoscopist.

Bronchogenic carcinomas often reveal their presence by exfoliating malignant cells which can be recognized in sputum or secretions aspirated through the bronchoscope. Despite many perfections of cytologic technique many carcinomas cannot be diagnosed by this method.

Rather frequently symptoms provide the first clue to lung cancer if the physician is alert to their meaning.

Early lung cancer may be revealed in several ways (1) it may first appear as a small symptomless shadow on the x-ray film. *This type of cancer is the most curable of all; the five-year survival rate being reported as high as 70%.* (2)

(2) Early carcinoma may first produce a symptom; cough, hemoptysis or symptom of pneumonitis before any recognized shadow is seen on the x-ray. These carcinomas are missed by routine x-ray examinations. These require a medical examination. Often it is a routine, periodic type of examination which brings the disorder to light because respiratory symptoms are often disregarded by patients. (3) Early carcinoma of the lung may first produce a physical sign, at least a clue may come from this source during a routine examination when symptoms and x-ray findings may have seemed to be unimportant.

Surveys for detection of lung cancer report some rather discouraging results. (3) At least it can be said that mass minifilm surveys of large population groups are not proving to be as suc-

cessful as it had been anticipated. Thus we learn again that there is no substitute for a doctor. No machine can take his place. However, the machine is a very useful servant for the doctor.

Routine pelvic examinations with cytologic examinations of cervical smears are accepted by patients and physicians as good medical practice. It is my opinion that physicians who advise middle aged men should recommend cancer detection examinations on a routine basis — at least annually (the birthday examination), sometimes every six months. This cancer examination would include a history, (possibly a questionnaire), a physical examination (lungs, prostate, etc.), a good chest x-ray (expertly interpreted with carcinoma in mind) and follow-up of any clues which appear. This need not be time consuming and it *need not be more expensive than many costs of automobile servicing which are cheerfully borne by us all.* Such periodic examinations will not assure survival but it will reduce the risk.

Examinations should be urged upon those in the special risk group. This group consist of middle aged city dwelling men who have smoked *many cigarettes for many years.* Without stating that smoking is necessarily the cause — or the sole cause — of the risk there can be no doubt but that these men are eligible, not only for bronchogenic carcinoma but for several other serious disorders of lungs, heart and gastrointestinal tract. These men are most likely to need medical care and are often of the personality types which overlook that need.

Personal preventive medicine can best be provided by the private physician, not by the Health Department. There is no system of "mass medicine" which can replace the personal physician. Indeed most of the social reforms proposed and even some of the trends advocated by the medical profession at times are likely to debase the quality of medical care under the guise of increasing the quantity of medical care. Our system — the system of medical care developed in this country — deserves the credit for providing better care for more people than has ever been provided by any other country at any other time. This system is best able to cope with the problem of bronchogenic carcinoma detection and treatment.

Pre-malignant bronchitis is not a clinical entity — we do know how to recognize it — but it is well described by some pathologists, especially

by Doctor Oscar Auerbach. He has illustrated all stages of transformations of the bronchial mucosa from simple hyperplasia, through carcinoma in situ to invasive carcinoma. Cancer victims are shown to have these changes in the mucosa at sites far removed from the site of the carcinoma. (4) In other words he regards bronchogenic carcinoma as a local manifestation of a diffuse disease of the entire bronchial mucosa. Incidentally this makes it probable that many apparent late recurrences of bronchial cancer are really new cancers. There can be little doubt but that the diffuse bronchial disease described by Auerbach produces symptoms but we have not learned to recognize these symptoms for what they probably are, pre-malignant bronchitis. If the symptoms are not distinguishable perhaps mucosal biopsy may become the means of diagnosis. We have investigations now under way to try to determine if this is possible. We have been removing a small fragment of mucosa at the mouth of the middle lobe bronchus; a very convenient site and a harmless procedure. The difficulty is to establish what changes constitute evidence for pre-malignant bronchitis, if there is such a disease.

The symptom characteristic of this mythical disorder is probably the simple "cigarette cough." *The patient who abuses cigarettes expects to cough and does cough. His physician too often brushes the symptom aside as something inconsequential. Is it possible that he should tell his patient that this symptom is a threat of cancer? Is it possible that bronchoscopy and biopsy should be done for a simple cigarette cough? Is there any more logical approach to this problem of how to predict who is most liable to develop bronchial cancer?* The clinical identification of pre-malignant bronchitis is a challenge to the pathologist and to the clinician.

Treatment of bronchogenic carcinoma is often discouraging for the overall mortality rate approaches 90%. However, when the histologic type of the tumor is considered and the degree of development at the time of resection is given due regard the outlook for some cases is rather good. For example the five year survival rate of localized, symptomless nodules is reported as high as 70%. (2) Squamous cell carcinomas which are resected before any lymph node involvement can be detected by either surgeon or pathologist are cured (for five years) in 50% of cases. On the other hand small cell undifferentiated tumors are almost never cured regardless of how early they are resected.

SUMMARY

Bronchogenic carcinoma has become one of the major medical problems in America today and the "epidemic" is advancing in a startling manner.

Persons who are at maximal risk can be recognized by personal habits, place of residence, age and sex. These persons are urged to have periodic cancer detection examinations at frequent intervals.

Pre-malignant bronchitis is described by pathologists but its clinical identification and diagnostic criteria during life will require much study.

Treatment of certain favorable types of bronchogenic carcinoma is moderately successful but failure is very common when dealing with biologically unfavorable growths.

REFERENCES

1. Berkson, J.: Smoking and cancer of the lung. Proc Staff Meeting, Mayo Clin. 35:367 (June 22), 1960.
2. Shaw, R. R. and Paulson, D. L.: The Treatment of Bronchial Neoplasms. Springfield, Ill. (Chas. C. Thomas, Publisher), 1960.
3. Boucot, K. R., Cooper, D. A., and Weiss, W.: The Philadelphia pulmonary neoplasm research project: an interim report. Ann. Int. Med. 54:363 (March), 1961.
4. Auerbach, O., Gere, J. B., Forman, J. B., Petrick, T. G., Smolin, H. J., Muehsam, G. E., Kassouny, D. Y., and Stout, A. P.: Changes in the bronchial epithelium in relation to smoking and cancer of the lung. N. E. Jour. Med. 356:97, (Jan. 17), 1957.

WORLD'S FINEST MEDICAL CARE

The ability and willingness of the drug industry to invest vast sums in research, in new methods of production, and in factories, as well as their proficiency in mass production and rapid distribution, have contributed greatly to medical knowledge and the service that we, the members of the medical profession, are able to give to the public. Their cooperation, along with the afore-mentioned facts, has produced, probably, the finest system of medical practice and care in the world. — Irving Rubin, M.D. in *Annals of the District of Columbia*, Oct. 1961.

The Changing Picture of Psychiatric Hospitalization

Ruth I. Barnard, Ph.D., M.D.

Dr. Barnard submits an unusually clear view of the hospital's adaptations to newer knowledge and more intelligent attitudes in psychiatry. Many of her thoughts are applicable to all hospitals, especially those caring for patients (persons!) with chronic diseases.

THE PICTURE in psychiatric hospitalization is changing in many ways. Most of the changes are good, but none is in itself a panacea for the ever-growing mental health problems confronting us. For the purpose of this paper, I have labelled these changes geographic, financial, temporal, and conceptual, and will discuss examples of each kind.

There is increasing recognition that psychiatric beds should be provided within the community they are intended to serve, rather than at a distance as has been the custom until recently. The isolation of psychiatric patients in remote institutions, public and private, is a remnant of the old, though still active, attitude of mystery and fear that has stigmatized the mentally ill through the ages. In the many communities which do not have psychiatric in-patient facilities of any kind, when hospitalization is indicated, it must be away from home. Even when facilities are available locally, complete separation from family members sometimes is indicated, with actual physical distance, as in those cases where family members cannot be controlled in their contacts with the patient, and consciously or unconsciously interfere with treatment.

In most instances, however, it is much better for a patient to maintain his contacts with family, friends, and the community at large. There is less of a feeling of being "put away" or "sent away", less of the aura of mystery both for the patient and for others.

Two things are happening with regard to this aspect of "geographical" change. Psychiatric hospital facilities in urban centers are actually increasing, and these communities seem to be taking more notice of their psychiatric hospitals and the patients in them than was true even a decade or two ago. There is still a long way to go, but the picture is changing, slowly but perceptibly.

A second type of "geographical" change is taking place, which in my opinion is more controversial. This is the provision of a psychiatric unit within a general hospital. There are many things to be said in its favor. For the short term care of the acutely ill patient, a general hospital can provide treatment with a minimum of disruption of family ties, and feelings of strangeness.

Most people have some familiarity with the general hospital, and therefore, there is apt to be less apprehension about admittance there than to a psychiatric hospital. Almost every community has a general hospital, and is likely to be more willing to include psychiatric facilities there, than to provide them in a special setting.

Some medical insurance plans cover the costs of psychiatric treatment only in a general hospital, and exclude those in a psychiatric facility. Finally, the ready availability of a wide range of diagnostic facilities and consultants may be most desirable where there are physical complications.

One of the points often made in support of this trend is that it will facilitate closer cooperation and better understanding between psychiatry and the rest of the medical profession. This is

Presented at a staff meeting of Camelback Hospital, Phoenix, Arizona, April 18, 1961.
Clinical Director, The Westwood, Los Angeles, California.

Original Articles

not the place to go into the reasons for the apparent lack of rapport, or the best ways to remedy it. However, experience has not shown that geographic proximity alone is enough to insure rapport and cooperation.

In our current zeal to educate the public to greater understanding and acceptance of mental illness, I believe we have over-emphasized the similarities between mental and physical illness, and neglected the very real and important differences. Similarly, in our zeal to bring psychiatry into the general hospital, we have overlooked the real and important differences between the hospital requirements of the medical or surgical patient, and those of the psychiatric patient.

With very few exceptions, psychiatric patients are ambulatory. They are in a hospital, not because a particular diagnostic or treatment procedure can be carried out better there than at home or in an office, but because they need 24-hour a day treatment and supervision for *all* facets of their disordered lives. Everything that goes on within the hospital must be geared to meet individual patients' needs. All of the hospital personnel need to know about the nature and meaning of mental illness and its treatment, and where they fit into the overall picture. This means not just the nurses, aides and occupational therapists, but the business manager and book-keeper, the switchboard operator and the secretary, the cook, the waitress and the janitor, all of whom need special orientation. Outdoor recreational space and indoor occupational therapy equipment of many different kinds are as vital as pills and surgical dressings. But where, particularly in a congested urban center, is the general hospital with space and the attitude to provide these special aspects of a psychiatric facility? I am reminded of what a patient said about her experience in the psychiatric unit of a general hospital, which is a closed ward of 24 beds, on the third floor. She said, "Everytime anyone wanted to go outside for a walk or some fresh air, it was a production." This is not generally conducive to the re-learning of social living and the responsibility for one's self that are the essence of the goals of psychiatric hospital treatment. Nor is the competition from the psychiatric unit, with its great need for both space and personnel, conducive to establishment of rapport with our colleagues in other specialties.

The financial aspects of psychiatric hospitali-

zation are less complex. Insurance coverage is increasing, both in terms of more people insured, and more adequate provision for psychiatric treatment. Increasing numbers of people who need it can get hospital care without the cumbersome, and often traumatic procedures attendant upon public hospitalization. Treatment becomes immediately available, voluntarily, and within the financial means of the insured family. On the other hand, despite this brighter picture, there are still many gaps. Some policies, otherwise adequate, exclude all psychiatric treatment. Even when out-patient treatment and hospital care are covered, the day hospital still falls in limbo, for the most part being recognized as belonging to neither category, and receiving no explicit coverage.

One of the most important and interesting developments in psychiatry is the day hospital. A day hospital provides all aspects of psychiatric hospital treatment except those inherent in the 24-hour nursing supervision of the full time hospital. Patients spend all or part of the day in the day hospital, returning home the rest of the time. The use of such a facility has important effects on many aspects of psychiatric hospitalization. A patient, who no longer needs the protection and constant supervision afforded by the hospital, can still benefit from the rest of the therapeutic program within the day hospital. Therefore, the length of hospital stay can be appreciably shortened. For others, hospitalization may be unnecessary from the beginning, if day hospital facilities are sufficient to meet the requirements of the case. If there is no day hospital, full time hospitalization must be resorted to, in order to get the one aspect of the treatment program.

The cost of day hospital treatment is significantly lower than that of full-time hospitalization, particularly where the day hospital shares personnel and facilities with a hospital. Where the two facilities are entirely separate, and there is completely duplication of staff and equipment, the cost would be somewhat higher, but still below hospital costs.

Since the advent of the day hospital, more has been heard about the so-called "night hospital". Actually, this is not a new concept. In almost all psychiatric hospitals which offer treatment rather than just custodial care, there are patients from time to time who are able to leave

the hospital during the day, even to hold a full-time job, but who are not yet ready to return to the community. They come back to the hospital at the end of the day, participate in the evening therapeutic activities, sleep there, and leave again for work in the morning. This is a long established practice which, as a parallel to the day hospital, has recently been given the name of night hospital.

These changes in psychiatric hospitalization are closely related to each other. Earlier institution of hospital treatment and reduction in the length of stay (financial change) is related both to the greater availability of facilities within the centers of population (geographic change), to better insurance coverage for psychiatric illness, and to increase in day hospital facilities (temporal change). These factors in turn influence the acceptance of the psychiatric patient by and within the community. The avoidance of complete disruption of family ties, together with early return home diminish the stress that, to some extent, is always present in these circumstances: the worry over the illness, the financial problems it may bring, the reactions of children to the absence of a parent and the problem of coping with these, the uncertainty, guilt feelings, etc.

Basic to the changes already mentioned, is the changing concept of the psychiatric hospital itself, and its place in the treatment of mental illness. We tend to look upon the emergence of the modern psychiatric hospital from the asylum of by-gone days as an accomplished fact. It is more correct to say it is in the process of such accomplishment. One can see all stages of the process exemplified among the various institutions throughout the country.

One term which has taken the fancy of American psychiatry is the "therapeutic community." The concept behind the term, however variously interpreted and implemented it may be, has stimulated much progress particularly in some of the large public hospitals. It has brought about increasing recognition of the fact that patients in psychiatric hospitals are people, and that they will respond positively, as will people everywhere, to interest, friendliness, and respect on the part of others. It is unfortunate that this lesson is still to be learned in some places, but fortunate that such places are diminishing in number.

It is in the area of the total treatment program

that changes are most manifest. As one visits hospitals throughout the country or talks with people in the field, it becomes apparent that no two have identical programs, or approaches to the question of hospital treatment. We are generally headed in the same direction, but along different roads and at different rates of speed. Just where are we headed and why is there so much difference among us?

I would like to think we are all headed toward providing *whatever* the psychiatric patient needs in the way of treatment and rehabilitation, when and where he needs it, with a minimum of procedural difficulty, and adequately financed. This may sound obvious, particularly to non-psychiatric physicians. But in psychiatry, over 85% of the beds are in large tax-supported public hospitals where, for many reasons, the patient's needs are often subordinated to the needs of the institution and flexibility is all but non-existent.

Furthermore, psychiatric illness, both in its causes and in its consequences, is not solely a medical problem. The providing of adequate facilities is a responsibility of the total community. Health, social welfare, vocational, law enforcement, judicial, religious and innumerable other agencies and institutions are all part of the resources for mental health. It is not easy to mobilize a community for any cause, least of all the cause of mental health. (1)

Despite the obstacles, let us assume we are all headed for this one goal. Whence the variation in approach and progress? It is difficult, if not impossible to categorize the former. But behind the varying philosophies and theories, behind the techniques and labels, one can see common denominators which serve as background to the differences.

1. One of these is the increasing recognition of the fact that to be happy and emotionally well, a person must be occupied for part of his time in useful work. Sometimes the work is solely for the benefit and maintenance of the hospital, though it may indeed be called "industrial therapy". Sometimes it is more variable — perhaps for the hospital, perhaps for a member of the family, or a friend, or for the patient himself, depending upon which is best for the individual at a given time. The Austin Riggs Center has an interesting approach which paid an unusual dividend. There each patient is required to do a

1. See "Action for Mental Health," The report of the Joint Commission on Mental Health and Mental Illness.

Original Articles

minimum of one hour's work daily for the hospital, for which he gets paid. The patients, themselves, decided to contribute their earnings to a fund for the support of treatment for patients who need financial help for this. (2)

Other constructive activities — creative, intellectual, and recreational — are also being increasingly recognized as an important part of healthy living, and being made part of the therapeutic hospital milieu.

2. Regardless of the physical arrangement within the hospital, patients are in close proximity to one another 24 hours a day, usually with less privacy than is available at home. The social and community aspects of hospital life are receiving more attention, and patients are having more and better-guided opportunities to participate responsibly in the management of the non-technical aspects of their environment, as part of the treatment program.

Here a word of caution is necessary. It is easy to rationalize an abrogation of medical responsibility by calling it part of the therapeutic community, such as the turning over to the patients themselves decisions regarding privileges, leaves and discharges from the hospital. More proper areas for patient participation include the planning of ward social activities, the orientation of new patients to the hospital, the drawing up of "house rules" for a ward, and the assignment of housekeeping and decorating duties, all in the interest of more harmonious community life.

3. A third common denominator emerging in hospital practice is the increasing awareness and positive use made of the patient's outside ties, to family, minister, employer, friends, etc. The isolation between the patient and the community is slowly breaking down in the wake of the breakdown of isolation between psychiatrist and community. Just as the outside world, or some part of it, plays a role in illness, so it also reacts to the illness, contributes to the recovery and is an important part of rehabilitation.

These are only samples of the common denominators in modern hospital treatment, and deliberately chosen because they are often overlooked in favor of the more dramatic advances in the use of drugs, and other specific treatment measures, which also contribute to the changes under discussion. What are some of the reasons for the variations among psychiatric hospitals? I believe

there are three outstanding factors.

1. We must recognize the role played by the practical determinants of the hospital program. If we think in terms of our goal of individualized treatment and rehabilitation, we can quickly see why the over-populated, under-staffed and under-financed state hospitals lag behind a small, well-staffed and adequately financed voluntary or proprietary hospital. Some of the practical obstacles in the path of more rapid progress are: cumbersome admission procedures, inadequate numbers of personnel, inadequately trained personnel, lack of funds, problems of licensure from state to state, location of many hospitals away from educational, social and cultural centers (which would attract personnel), and an apathetic and generally ill-informed public.

2. Psychiatric hospital treatment, like all medical treatment, depends on its theoretical basis. Historical perspective highlights this for us. Psychiatric treatment was one thing when mental illness was understood in terms of demons and spells, quite another in the days of intoxication from diseased gall bladders, colons and tonsils, and still another in this day of dynamic psychiatry. But we do not yet have a unified theory of mental and emotional illness. We have many theories — organic, psychological, social, cultural, and variations and combinations of these. The multiplicity of approaches to treatment is a consequence of this.

3. The third factor in the achievement of our goal is the public. Public support and cooperation are essential both to the full use of the knowledge and resources we already have, and toward making real strides toward further knowledge and increased resources. Although here I include public opinion that will insist on more adequate tax-supported facilities, I do not mean *only* that. The general public, together with the mental health professions, and neither one alone, will bring about: better insurance coverage for psychiatric illnesses; smaller, locally available facilities; day hospitals; better commitment laws; more and better-trained mental health personnel; more rehabilitation facilities; increased acceptance and understanding of the discharged mental patient, in industry, and in society in general.

Psychiatry is a specialty within the field of medicine, and hospital treatment is only one of its many aspects. Within this apparently limited area there is a wide variety of types of hospitals:

2. Related in a talk given before the Los Angeles Society for Psychoanalysis by Dr. Robert P. Knight, Director of the Austen Riggs Center, 1958.

proprietary and voluntary specialized hospitals, psychiatric units of general hospitals, university hospitals, county, state and federal hospitals. Some have 25 or 30 patients, some have 10,000 or more. Some treat all types of patients, some only certain kinds. The size and quality of the staff, the nature and effectiveness of the treatment program, are just as varied. Yet out of this hodge-podge we can see a changing picture, and can be optimistic about it.

There is a general reaction against the isolated "asylum" and a move back to the centers of populations. There is improved public acceptance of psychiatric treatment. There is increasing voluntary insurance coverage. There is earlier institution of treatment. There are new facilities providing more flexibility to meet the needs of patients. There are more rational and thoughtful approaches to hospital treatment. And most important of all, particularly to those of us closely identified with hospital work, incarceration is giving way to treatment, patients are being treated not only humanely but humanly. Nowhere have I heard this more beautifully expressed (and rarely enough expressed at all) than in the following excerpts from a talk given by Dr. Karl Menninger at the dedication of the C. F. Menninger Memorial Hospital, "The Meaning of the Hospital."³ It is the spread of this attitude through the profession and throughout the land that gives the note of optimism and hope to, and is the essence of the changing picture in psychiatric hospitalization.

"The meaning of this hospital is embodied in the fabric of the personalities, the human beings who work together in it . . . And I don't mean

only those who dedicate their lives and their daily work to the relief of suffering and the development of human potentialities. I would include those temporarily incapacitated fellow human beings whose earnest efforts to make use of the help that is offered them combine to make up the spirit of cooperative human endeavor that constitutes the meaning of a hospital.

"The meaning of this hospital can be said to lie in the answer to the question, What difference does it make? What difference will this hospital make in the lives of the people who come here to be helped? What difference will it make in the lives of those who come to help? What difference will it make in the lives of those who have already helped to make this possible? Who can find words in his heart to answer such questions? Who would trust his imagination to go far enough in envisioning the possibilities? What calculating machine would be powerful enough to compute the total worth of the lives which will be revolutionized here by help received, or by help given, by lessons learned and by lessons taught?

"Time was when a hospital was a place in which to die. It was not a place of mercy and of healing, but one of endurance, charity, and pity. But the meaning of the modern hospital is quite different. It is no longer an asylum, no longer a pest house, no longer a hotel on the way to God. It is a beacon, a lighthouse — and, for all its scenes of suffering, it is a place of joy. It is a place in which people come, not to die, but to cease dying — a place in which to get well. Temporary refuge it may be, and, in another sense from the original, truly a "hotel of God" — a way station, not on the way to death, but on the way to life."

3. A PSYCHIATRIC WORLD, THE SELECTED PAPERS OF KARL MENNINGER, M.D. Bernard Hall, M.D. editor. Viking Press, 1959.

POLITICIAN AT THE BEDSIDE

We trust the Congress has gumption enough not to approve some of the ideas of the coonskin crowned Senator about drug patents. To do so would only sound the death knell of pharmaceutical research. The Senator's ideas about lack of competition are not factual; he simply doesn't know what he is talking about. . . . His plan to make a Federal bureau the judge of efficacy is nonsensical. The clinician at the bedside is the one to determine efficacy. The politically climbing Senator would lodge too much autocratic power in a Washington bureau which might become dictatorial. — Editorial in *The Western Virginia Medical Journal*, Oct. 1961.

The Use of the Vermiform Appendix in Ureteroplasty

Delfino Gallo, M.D.

The author presents his own modification of the technique of employing the healthy vermiform appendix as a substitute for the lower right ureter in cases of its destruction due to surgical trauma where end to end anastomosis or reimplantation is not feasible. He points out that the mobilization and canalization of the appendix is a lot less difficult and is accompanied by less morbidity than the use of an ileal conduit or bladder flap. Several cases are reviewed and end results discussed.

THIS presentation is a report and description of the surgical technique in the use of the cecal appendix in ureteroplasty. This work was originated at the Hospital Civil de Guadalajara and was first reported in February, 1956 before the Mexican Urological Society. It was later published in the GYN and OB publication of Mexico. In 1959, A. Kriss, J. Correy and Rouente published an article using the same technique in the same year. Dr. Ray Honnea of Spain reported the use of this technique in repairing the lumbar portions of the ureter by the cecal appendix.

This presentation to the "Sociedad Medica de Estados Unidos de Norte America y Mexico" was made up for two reasons. First, some minor improvements have been made in our original technique and secondly, we are able to report a five year follow-up of one of our first series operated upon.

Most of the injuries to the ureter occur in gynecological surgery. The cutting and tying of the ureter was rare, however, due to the excellent exposure in the majority of gynecological surgery. On the contrary, the segmental destruction of the ureter is very frequent through the destruction of its blood supply during extensive pelvic surgery.

In gynecological surgery for malignant neoplasm of the cervix, ligation of multiple pelvic

vessels causes a precarious blood supply to the ureters and, on the other hand, the mobilization of the ureters an obligatory procedure for adequate removal of the parametrial tissue produces a distortion or inevitable damage.

The ureteral lesion of the ischemic type is characterized in the clinical aspect by its late manifestation due to the time needed in the development of the secondary necrotic tissue. It takes about six to twenty days after the original surgery before you notice the abnormal infiltration of urine in the surrounding tissue.

The anatomical peculiarity of the ureteral lesion is such that it always affects a considerable portion of the ureters. For this reason an end-to-end repair is practically impossible.

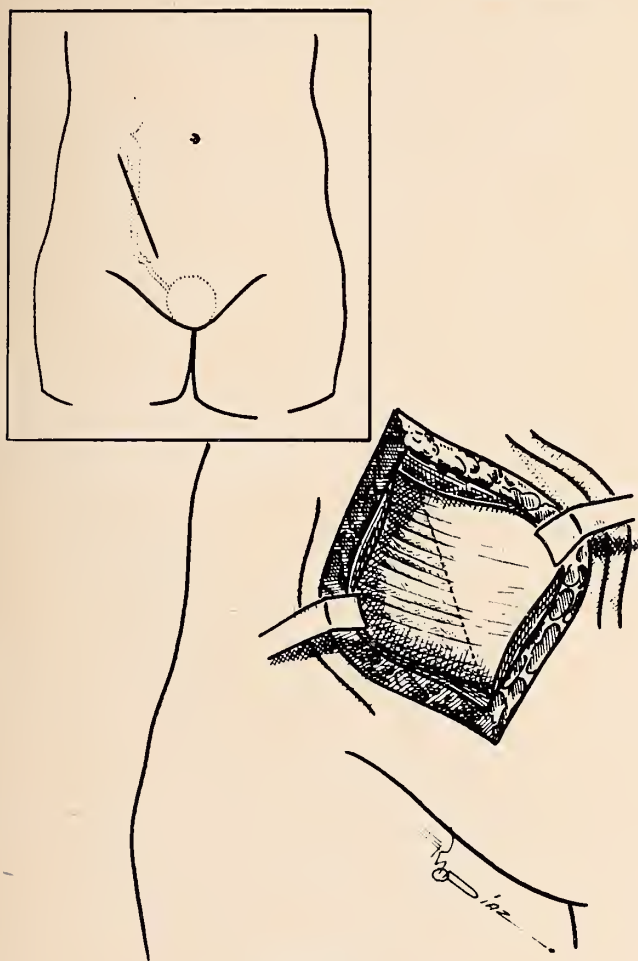
In general, the case must be resolved by reimplantation of the ureter into the bladder (uretero-vesical transplant). This can be done by the usual method described by Herman, or if necessary and desirable, a section of bladder can be made in a tube to bridge the gap. This method has been described by Boan. This latter method is not very satisfactory because at the point where the tube joins the ureter the blood supply is often impaired, causing the anastomosis to fail. In spite of the above mentioned difficulties it is not wise to resort to a nephrectomy.

In those patients afflicted with cancer you can never be certain that the supposedly healthy ureter is free from neoplastic invasion. It is because of this doubt that it is wise not to sacrifice the

Paper read at the 5th Annual Meeting of the Medical Society of the United States and Mexico, held in Mazatlan, Sinaloa, Mexico.

Professor of Gynecology, Faculty of The Medical School of The University of Guadalajara.

Illustrations are included with Spanish version, "Apéndice Cecal Como Material de Ureteroplastia," which follows.

**FIGURE 1.**

Right paramedial slightly oblique incision.

kidney, even at the cost of a very laborious procedure to restore the excretory passage.

The best technique that can resolve the great majority of the difficult cases is an ureteroplasty with interposition of a loop of ileum, as Melinkoff and others have described. This is a very delicate and elaborate operation and presents the potential risk of peritonitis from separation of the sutures.

In patients where the lesion is on the right side, I have performed a plastic repair of the ureter using the cecal appendix for the tube with all its intact vascular connections. I am under the impression that it is an excellent technique since the cecal appendix is mobile and when covered by the peritoneum heals rapidly. On the other hand this technique being all extra-peritoneal, there are no risks of peritonitis.

The technique briefly described is as follows:

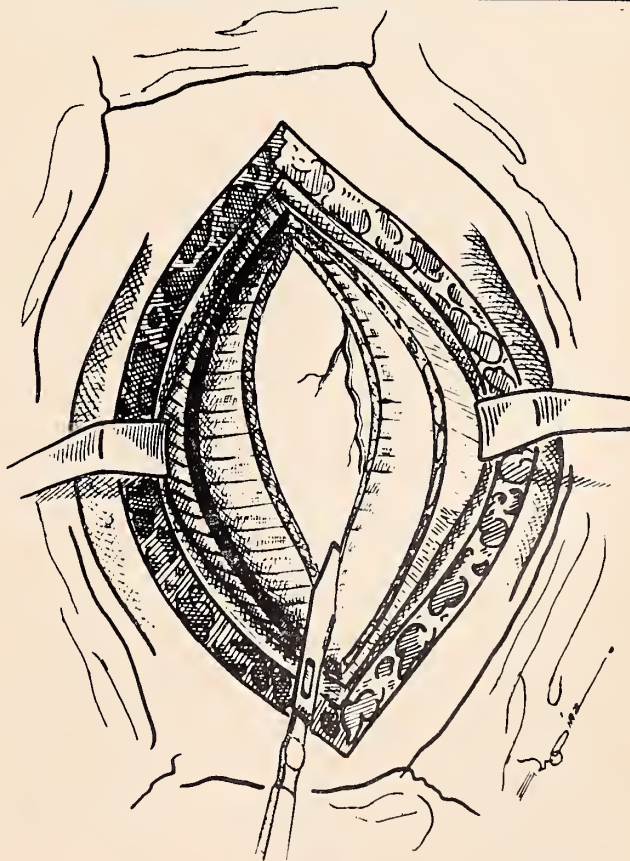
A. Pre-operative Preparation

The preparation of the bowel should be made as if an intestinal resection is to be

performed. Occasionally with the presence of an atrophic appendix well fixed or some other unusual anatomical abnormality, one may have to resort to the interposition of the ileum.

Six days before surgery the patient should be administered a non-absorbable sulfa, tetracycline or neomycin. The diet should contain little residue. The day before surgery cleansing enemas should be given.

B. We prefer spinal or peridural anesthesia along with a right paramedial incision. Following the skin incision the fascia of the external oblique muscle is incised and the muscle is separated along the course of the fibers. The internal oblique muscle and the transversalis fascia is treated in the same way, which exposes the peritoneum. (Fig. 1 & 2)

**FIGURE 2.**

Section of the internal oblique and the transverse without opening the peritoneum.

C. The lower third of the ureter and bladder are located. The ureter is then cut clearly at the zone where the dilated portion begins. It is then catheterized with a polyethylene tube and fixed with a "U" suture. (Fig. 3)

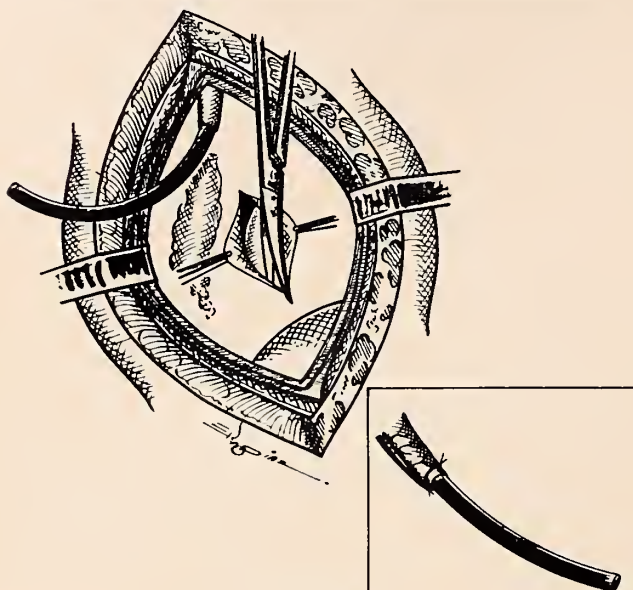


FIGURE 3.

Localization of the ureter section in a healthy portion. Introduction of the polyethylene tube and fixation with catgut with a "U" stitch. Start to open the peritoneum.

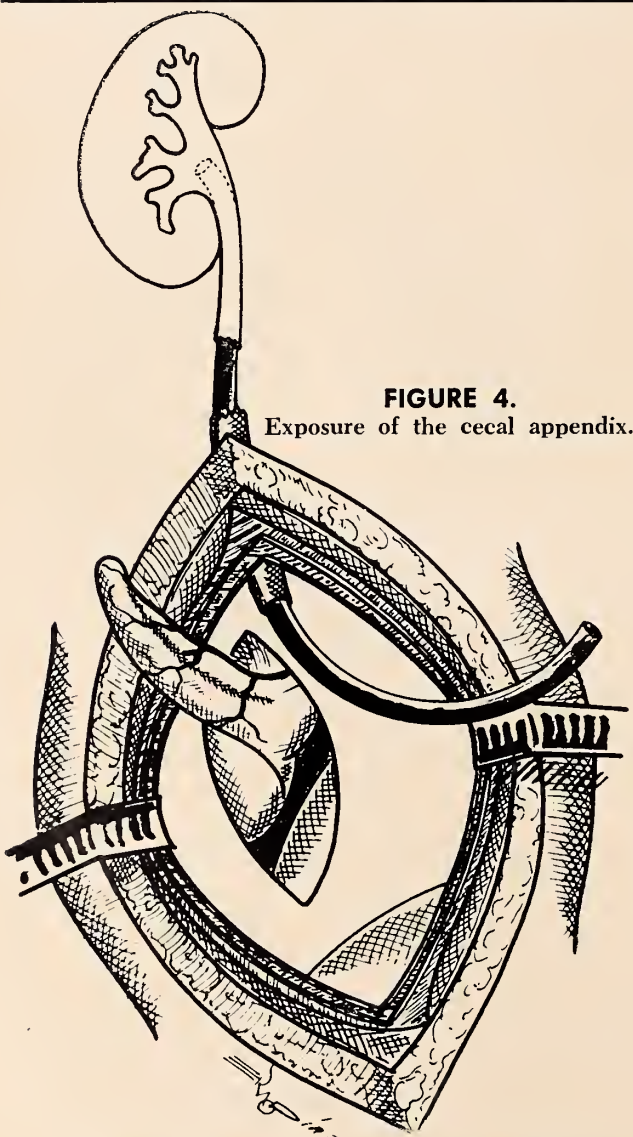


FIGURE 4.

Exposure of the cecal appendix.

D. A small incision is made in the peritoneum and the cecum and appendix identified. (Fig. 4)

E. If the appendix is well developed and apparently healthy, it is exposed and dissected very carefully at the base, preserving the integrity of the meso-appendix. The side of the cecum is ligated and the stump is inverted with one or two sutures, (Figs. 5 & 6). The peritoneum is sutured to the cecum, exposing one part in such a manner that the appendix with its base and meso-appendix are extraperitoneal.

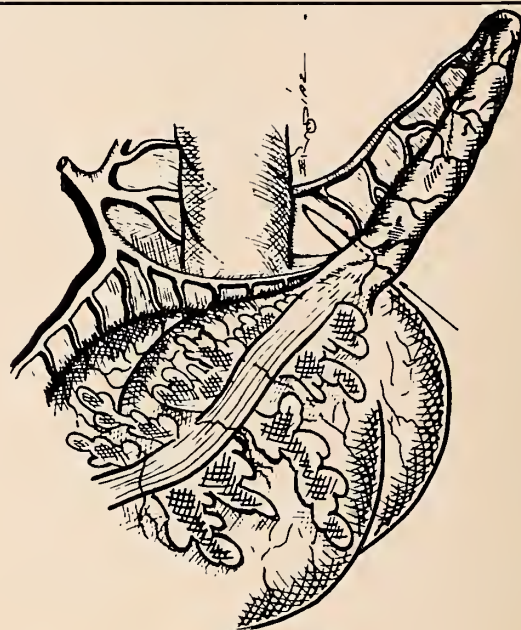


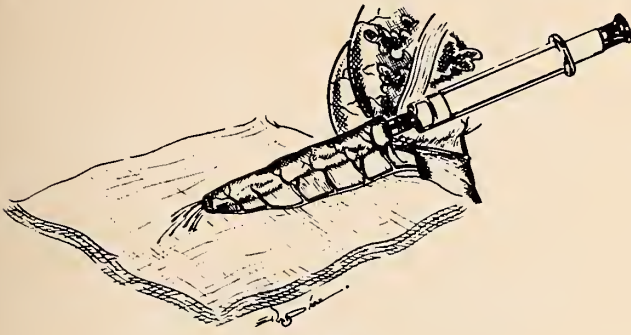
FIGURE 5.

Section at the base of the appendix, sparing the appendicular artery.



FIGURE 6.

Cross section of the appendix keeping the vascular connections. Cecum is closed with sutures.

**FIGURE 7.**

The distal end of the appendix has been sectioned and washed out with an antibiotic.

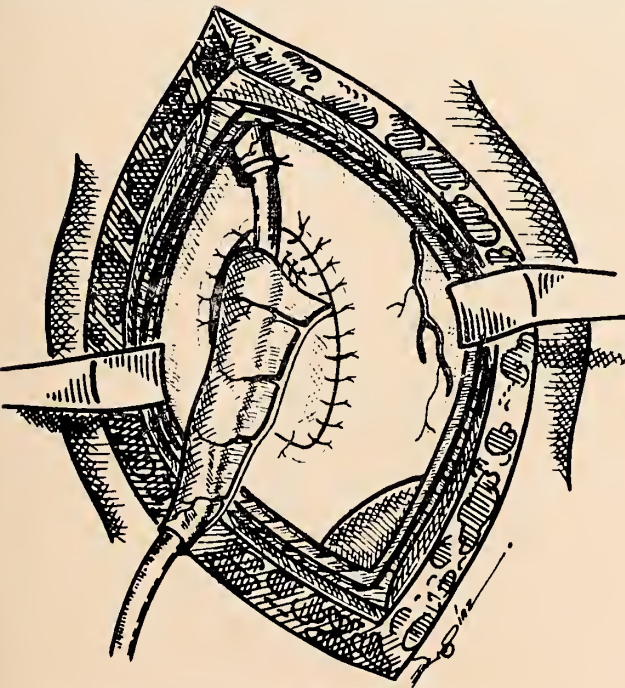
F. The end of the appendix is then cut to ascertain if the circulation is adequate. If not, it would be necessary to resort to another method.

Place a sterile syringe in the end of the appendix and irrigate with a solution of neomycin or streptomycin.

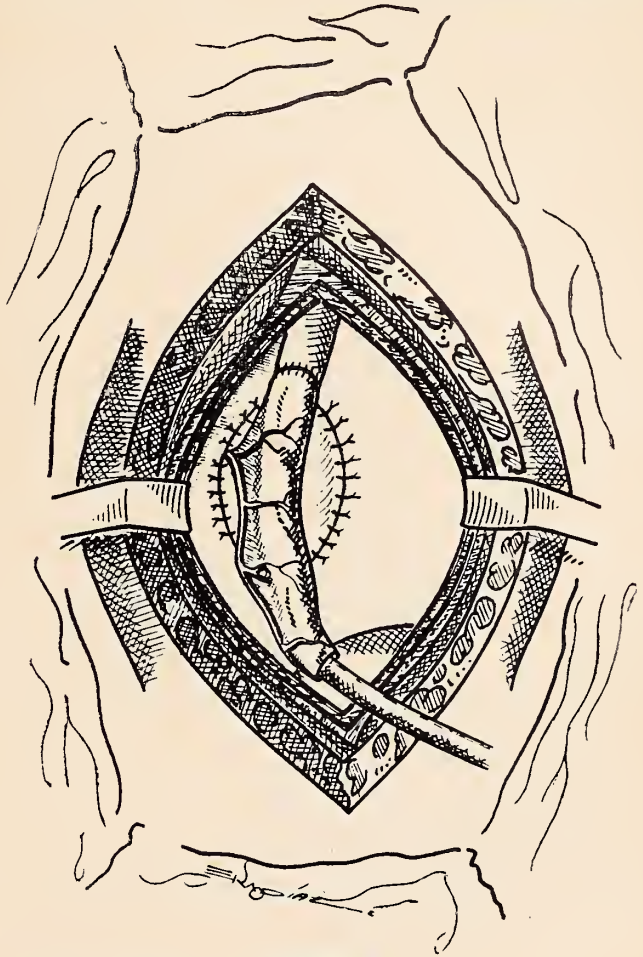
G. The polyethylene tube that was previously introduced into the ureter is then passed into the appendix and the appendix is then sutured to the ureter with uninterrupted fine catgut. (Figs. 8 & 9)

H. A small incision is then made in the latero-posterior part of the bladder, at a place where the end of the appendix can reach without tension.

We then introduce a clamp through the

**FIGURE 8.**

The polyethylene is introduced through the appendix. Notice the peritoneal incision sutured to the cecum.

**FIGURE 9.**

Ureter sutured to the appendix.

vesicle incision and with the clamp put pressure against the dome of the bladder. A second incision is then made in the dome of the bladder over the clamp. (Fig. 10)

With this clamp which is now through the dome of the bladder, a cotton thread is pulled through the original bladder incision and then sutured to the polyethylene tube. (Fig. 11) By pulling on the cotton thread the polyethylene tube is pulled through the original bladder incision and out the suprapubic incision. This delivers the appendix previously attached to the ureter into the bladder. (Fig. 12)

I. With a "U" stitch the end of the appendix is sutured to the bladder mucosa by a method similar to Hinman's. The vesicle incision is then closed (Figs. 13-14) and the polyethylene tube is attached to the skin with a stitch.

J. A Foley catheter is then placed into the bladder through the urethra. The polyethylene tube is removed on the twelfth post-

Original Articles

operative day and the urethral catheter on the fifteenth postoperative day. (Figs. 15-16)

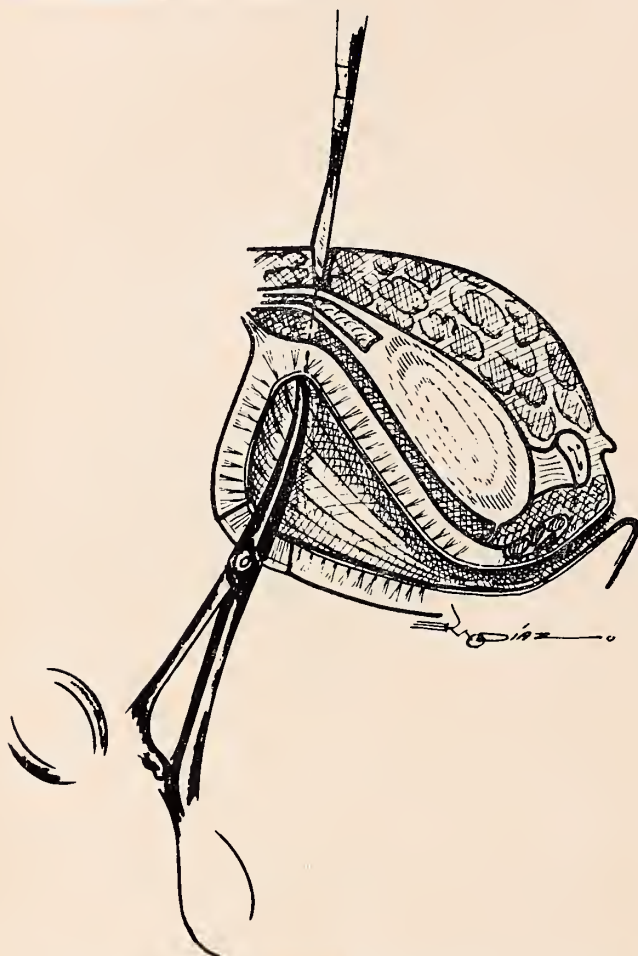


FIGURE 10.

Opened bladder. A clamp is introduced to make a microcystostomy.



FIGURE 11.

A thread is passed with the clamp.

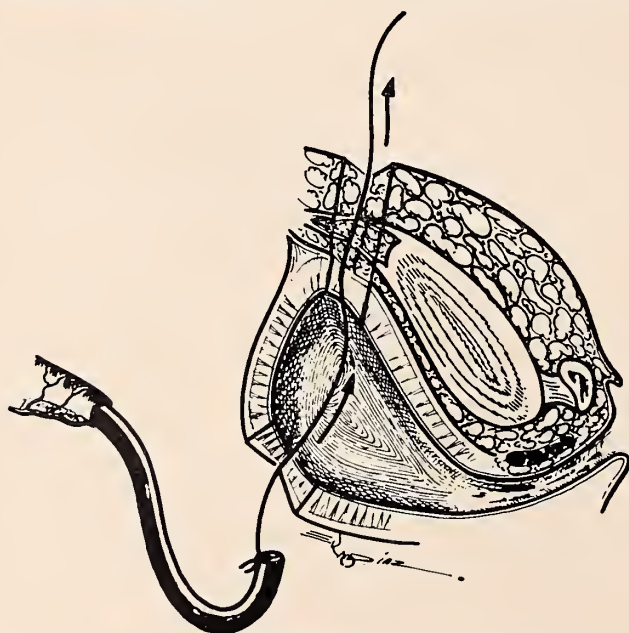


FIGURE 12.

The polyethylene tube is exposed by pulling on the thread.

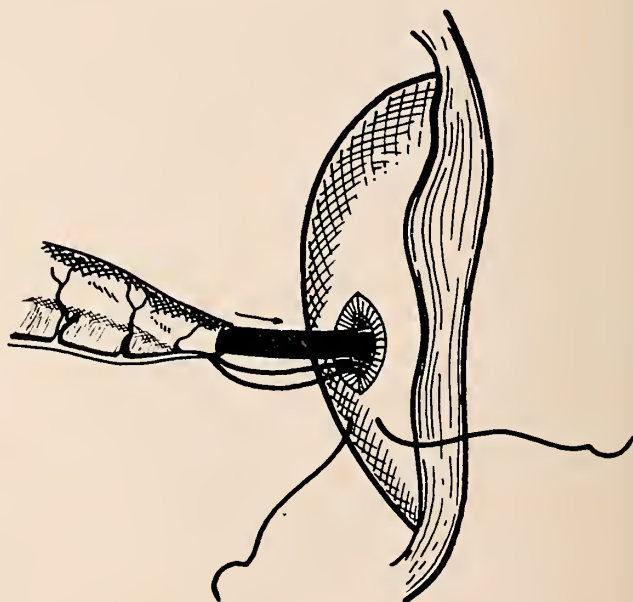


FIGURE 13.

A "U" stitch placed on the appendix to pull it through with the thread.

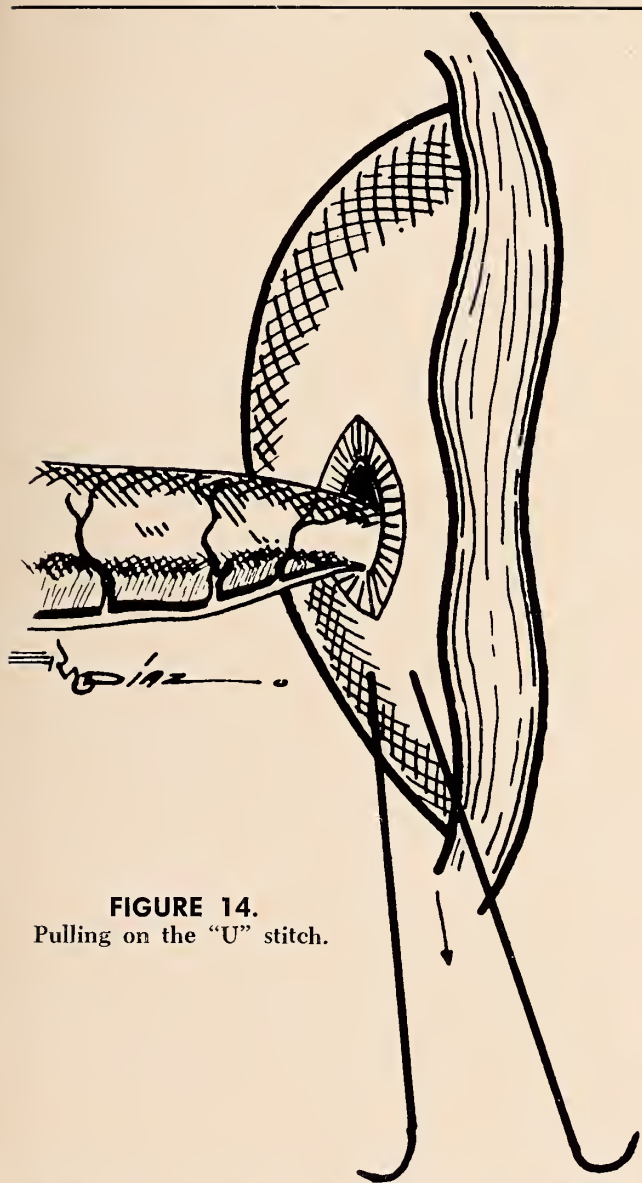


FIGURE 14.
Pulling on the "U" stitch.

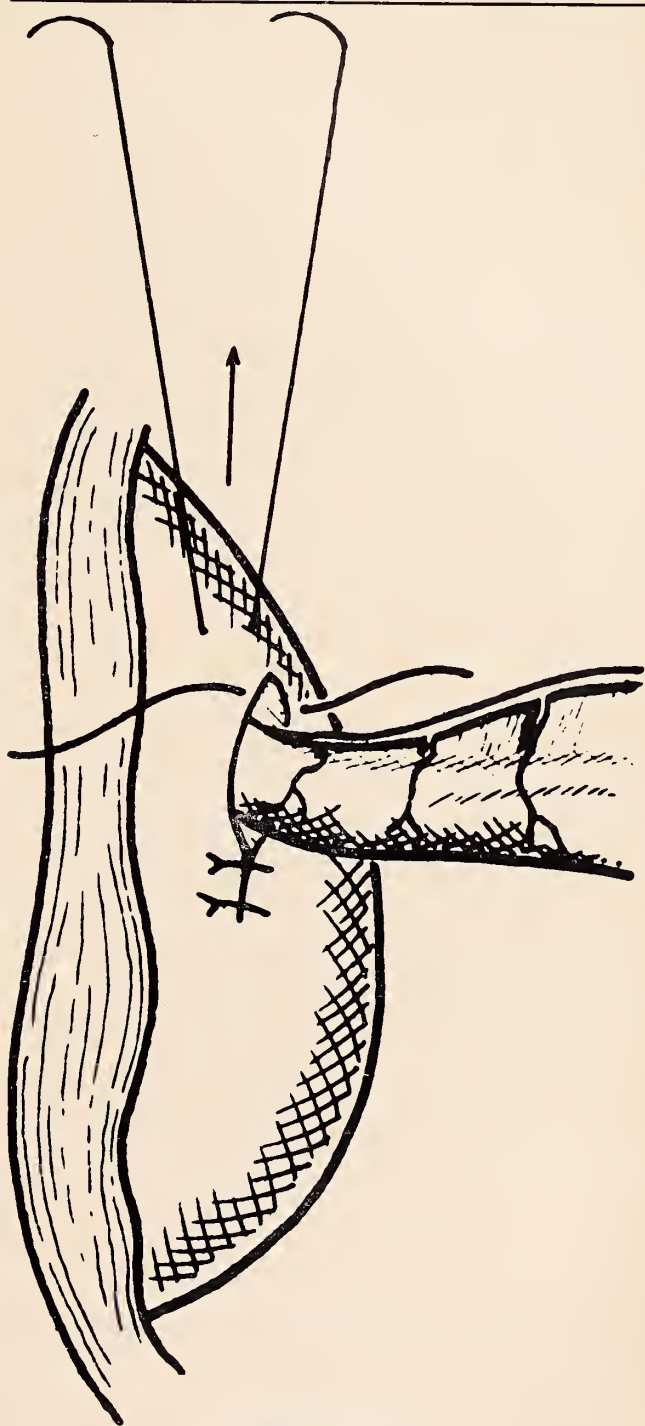


FIGURE 15.
The incision of the bladder is reduced before the "U" stitch is tied.

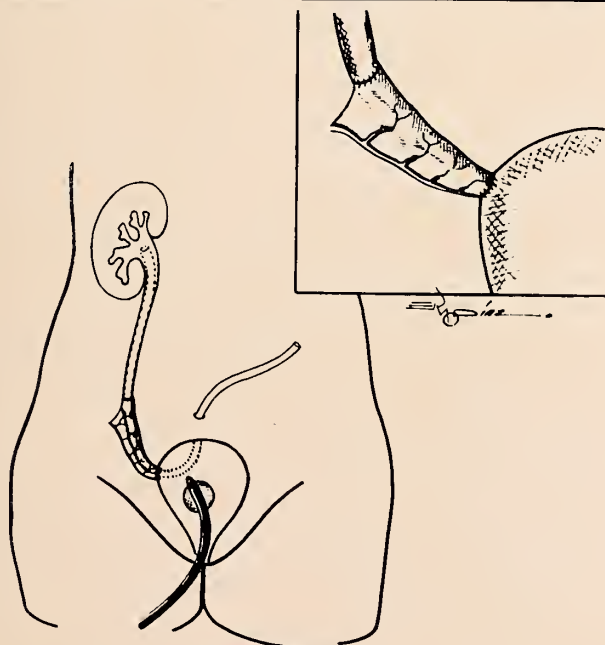


FIGURE 16.
Diagram of the completed operation.

CLINICAL REPORT

During the past four years I have used this procedure in five different patients.

Case I.

A 55 year old female, moderately obese, sustained a ureteral-vaginal fistula from the right ureter following a radical hysterectomy for cancer of the cervix. Three months after the discovery of the fistula the operation for the repair was made. My original plan was to perform an ureteroplasty by using a segment of the ileum.

Original Articles

While looking for the appropriate loop I noticed a well developed and healthy appendix. By using the above technique, I fashioned the repair without incident. The patient has now been free of symptoms for four years.

Cystoscopy revealed a marked reduction in the hydroureter and hydronephrosis and the kidney is free of infection.

Case II.

A 43 year old female, slender and of a healthy aspect. She also had an uretero-vaginal fistula on the right side. With use of a paramedian incision the plastic repair by using the appendix was performed. On the last examination three years and five months later cystoscopy revealed the plastic repair functioning perfectly.

Case III.

A 53 year old female of medium build. The same procedure was used but postoperatively she developed fever, infiltration of urine and an abscess. The wound was reopened, the abscess drained and the appendiceal tube removed. A fistula was established in the abdominal wall and three months after the surgical failure the situation was resolved in another manner.

Case IV.

A 70 year old male diabetic in poor health presented himself with an abdominal ureteral fistula following a ureterolithotomy. He had de-

crease in the function of his left kidney. A ureterocystostomy was attempted and failed. We then attempted the repair by use of the appendix. The surgery happened to be successful but the patient died of a cardiac infarct 6 weeks later so no follow-up could be obtained.

Case V.

A 40 year old female in good general health presented herself with a uretero-vaginal fistula occurring 14 months before, after a total hysterectomy. No neoplastic tissue had been reported.

There was so much fibrosis in the pelvis that the finding of the ureter was very difficult. The patient's condition was so poor that we had to stop the operation and close the wound, but before closing I placed a catheter in the ureter and drained it to the outside.

Six weeks later a ureteroplasty with use of the appendix was performed. Aside from a wound abscess which was drained six days following the ureteroplasty, the patient recovered satisfactorily and the ureteroplasty is functioning well.

RESUME

A technique of ureteroplasty by using the cecal appendix is described and five cases are reported. This technique was originated in Guadalajara, Mexico.

THE PHOENIX SURGICAL SOCIETY

announces the
FIRST ANNUAL SURGICAL ESSAY AWARD
for a
SCIENTIFIC PAPER
on a
TOPIC OF SURGICAL INTEREST
to be

Presented by any member of the resident Hospital Staff, employing original clinical or experimental research, or review of clinical cases, or collective review of subjects pertaining to anatomy, physiology, pathology, diagnosis, or therapy, before the
Phoenix Surgical Society at an invitational meeting in June, 1962.

Requirements and Conditions

1. The essay should be previously unpublished and original, and should be prepared in conformity with standards used for publication in any major surgical journal. Assistance in organization and preparation of articles can be obtained from members of the Phoenix

Surgical Society.

2. An abstract of the essay, of less than one hundred (100) words should be sent to Morton Comess, M.D., 2021 N. Central Avenue, Phoenix, before May 1, 1962.
3. The original completed essay and one copy should be sent to Dr. Comess before June 1, 1962.
4. Selected candidates will be invited to present their essays before the Phoenix Surgical Society at the June Meeting.
5. Awards will be based on originality of topic, method of analysis and composition of essay, and manner of presentation. Judges will be appointed by the Board of Directors of the Phoenix Surgical Society.
6. First, second, and third places will be selected, and the manuscript will be submitted for publication under the auspices of the Phoenix Surgical Society. The best essay will be presented with a sizable cash award.
7. The exact time and place of the "Annual Surgical Essay Award" will be announced later.

Apendice Cecal Como Material De Ureteroplastia

Dr. Delfino Gallo, F.A.C.S.

El autor presenta su propia modificacion de la tecnica que emplea el apendice vermiforme como substituto para reemplazar porciones inferiores del ureter derecho en casos en que este ultimo haya sido danado en un acto operatorio, y cuando la anastomosis directa o la reimplantacion no sea posible. El Dr. Gallo hace resaltar que la mobilizacion y canalizacion del apendice es mucho mas facil y lleva una morbilidad mucho menor que el empleo de un transplante de ileo o un colgajo de vejiga. El autor describe various casos y comenta sobre los resultados tradios.

ESTE ES un informe sobre un procedimiento de Ureteroplastia que fué originado y estudiado en el Hospital Civil de Guadalajara (Hospital de la Escuela de Medicina de la Universidad de Guadalajara, México).

Fué presentado como trabajo de ingreso a la Sociedad-Mexicana de Urología el 9 de Febrero de 1956, Informando — sobre los tres primeros casos operados.

Fué publicado en la Revista Ginecología y Obstetricia de México en Marzo de 1956 bajo el Título de "10 AÑOS DE PROGRESO EN MEXICO EN UROLOGIA GINECOLOGICA".

Tres Años después, R. Küss, J. Camey y Roucoute (Mem. Acad. Chir, 85:315, 1959) informaron haber practicado esta misma técnica sin hacer alusión a la previa publicación hecha en México. En "Progresos de Cirugía y Ortopedia" 1959. Anuario editado en España por F. Ruíz Herrera bajo el título de "Sustitución del Ureter Lumbar por el Apéndice" también aluden a esa técnica sin mencionar los trabajos previos de la Universidad de Guadalajara.

Esta presentación a la Sociedad Médica de Estados Unidos de Norteamérica y México, obedece a varios motivos:

Han sido introducidos pequeños perfeccionamientos que facilitan el procedimiento; hemos tenido oportunidad de examinar a la primera paciente operada, después de casi 5-años, constatando la perfecta función del ureter restaurado. Finalmente, han sido operadas en el Hospital Civil de Guadalajara, dos nuevas pacientes.

Trabajo presentado en la 5A. Reunion Anual de la Sociedad Médica de Estados Unidos de Norteamérica y México, Mazatlan, Sinaloa, México.

Profesor de Ginecología de la Facultad de Medicina de la Universidad de Guadalajara.

En Cirugía ginecológica por neoplasias malignas del cervix, las lesiones accidentales de uréteres son raras en virtud de que la Amplísima disección de los Tejidos parametriales permite una excelente visibilidad sobre los citados ductos, lo que evita su daño inadvertido.

Por el contrario, y debido a las mismas circunstancias, son muy frecuentes las destrucciones ureterales segmentarias por mecanismo de isquemia.

Las ligaduras de múltiples vasos pélvicos, vuelven precario el riego Sanguíneo, por otra parte la movilización de los uréteres, obligada maniobra para una correcta exéresis de tejidos parametriales los distorsiona y maltrata inevitablemente.

La lesión ureteral de tipo isquémico se caracteriza, en el aspecto clínico, por lo tardío de su manifestación, puesto que se necesita tiempo para que se establezcan las lesiones necróticas secundarias; de 6 a 25 días, transcurren antes de que se note el escurrimiento anormal o la infiltración de tejidos que caracterizan el escape de la orina.

Una particularidad Anatómica, es que la lesión ureteral es amplia; siempre afecta a una porción considerable y por ese motivo es prácticamente imposible hacer la reparación por sutura cabo a cabo.

En lo general, el caso se debe resolver por reimplantación del caso ureteral a una zona más alta de la vejiga (Uretero-cisto-neostomía). Se puede emplear el método de implantación directa (Hinman ó similares). Al hacerse necesario, se puede recurrir a la formación de un colgajo tubular tallado en la vejiga para acortar la distancia ureter-vejiga, tal como lo pregoniza

Original Articles

Boari: El método de colgajo no es muy satisfactorio porque habitualmente las condiciones de irrigación sanguínea en el extremo del colgajo tubular son precarias, lo que hace fracasar a la sutura.

A pesar de las dificultades mencionadas, no es adecuado recurrir a la nefrectomía. En pacientes con cáncer nunca se puede tener seguridad razonable de que el ureter sano quede libre de invasión neoplásica; por ese motivo, siempre debe conservarse un riñón, aún a costa de métodos muy elaborados para restaurar sus vías excretoras.

La técnica que mejor resuelve la gran mayoría de los casos difíciles es la Ureteroplastia con interposición de un asa de ileon tal como lo indicaron Melinkoff y otros. Es un operación elaborada y minuciosa y que tiene un riesgo potencial de peritonitis por desunión de la sutura intestinal.

En pacientes en que la lesión asienta en el lado derecho, he realizado una reparación plástica del uréter, empleando como material el apéndice cecal provisto de todas sus conexiones vasculares intactas; tengo la impresión de que es una Técnica excelente, pues el apéndice cecal es móvil, profusamente irrigado y al estar cubierto por peritoneo cicatriza fácil y rápidamente. Por otra parte, siendo casi toda la Técnica extraperitoneal, no hay riesgo de peritonitis.

La técnica brevemente descrita, es como sigue:

A). — Preoperatorio. —

Se debe dejar un tiempo bastante largo entre el establecimiento de la fístula y la intervención quirúrgica con el propósito de que se eliminen todos los tejidos esfacelados. Se debe hacer una preparación del intestino como si se fuera a practicar una resección intestinal, pues en ocasiones, por la presencia de apéndice atrófico, ciego muy fijo u otras circunstancias, se tendrá que recurrir a la interposición de ileon.

Desde seis días antes: administración de sulfas no absorbibles, tetraciclinas o neomicina; dieta de poco residuo; finalmente, purgante y enemas.

B). — De preferencia bajo anestesia raquídea o peridural, incisión paramediana del lado derecho ligeramente oblicua.

Separación de las fibras del músculo oblicuo mayor y sección de las del pequeño y

del transversa para llegar al peritoneo sin abrirlo. (Fig. 1-2).

C). — Buscar e identificar el ureter y la vejiga. El ureter es seccionado limpiamente en la zona en que se inicia la porción dilatada. Se cateteriza con un tubo de polietileno, el cual es fijado con un punto en U. (Fig. 3).

D). — Se hace una pequeña incisión en el peritoneo y se busca el ciego y se identifica el apéndice (Fig. 4).

E). — Si el apéndice es bien desarrollado y aparentemente sano, se exterioriza; con mucho cuidado es seccionada la base del apéndice respetando íntegramente al meso. Se liga el lado del ciego y el muñón se hunde con unos dos puntos de sutura. (Figs. 5-6). Se sutura el peritoneo al ciego, dejando exteriorizada una parte en tal forma que el apéndice y su base con su meso queden extraperitoneales.

F). — Se corta la punta del apéndice (Fig. 7), observando si sangra normalmente si no hubiere buena irrigación sería necesario recurrir a otro método).

Se adapta una jeringa en un extremo del apéndice y se irriga con una solución de Neomicina ó de Estreptomicina.

F). — Se corta la punta del apéndice (Figs. 7), observando si sangra normalmente (si no hubiere buena irrigación sería necesario recurrir a otro método).

Se adapta una jeringa en un extremo del Apéndice y se irriga con una solución de Neomicina ó de Estreptomicina.

G). — El polietileno que previamente se introdujo en el ureter, se pasa a través de la longitud del apéndice y se sutura el ureter con el apéndice con puntos separados de catgut fino (Fig. 8-9).

H). — Se practica una pequeña incisión en la parte posterolateral de la vejiga, en un lugar que sea alcanzado por la punta del apéndice sin ninguna tensión.

Se introduce una pinza por la incisión vesical y se apoya para que haga relieve en la región suprapúbica. Con un bisturí se hace una pequeña incisión para practicar una "microcistostomía" (Fig. 10), por la que sale la punta de la pinza. Se atrae un hilo grueso de algodón que se sutura al tubo de polietileno que cateteriza al ureter y apéndice (Fig. II). Tirando del hilo se ex-

terio riza fácilmente el polietileno por la incisión suprapúbica (Fig. 12).

I). — Con un punto en U se introduce la punta del apéndice a la vejiga por un método similar al de Hinman. Se estecha la incisión vesical (Figs. 13-14). Se fija el polietileno a la piel con un punto de sutura.

J). — Sonda de Foley en la uretra; el polietileno sedeja 12 días y la sonda 15 (Figs. 15-16).

CASUISTICA:

Con este procedimiento he operado 5 casos: El más antiguo tiene 4 Años y el más reciente un mes.

Primer caso:

Enferma de 55 años, un poco obesa, fístula urétero vaginal del lado derecho consecutiva a Histerectomía radical por cáncer del cervix en 2o. Estadío clínico evolutivo. A los tres meses del establecimiento de la fístula se intervino quirúrgicamente. Mi plan era practicar uretero-plastia por interposición segmento de ileon; al buscar el asa apropiada observé que el apéndice era muy desarrollado, de aspecto sano y bien irrigado; tuve en ese momento la idea de aprovecharlo para la reparación plástica del ureter, practicando técnica similar a la que he descrito. La enferma sanó sin incidentes; permanece sin síntomas desde hace cuatro años y ocho meses; su aparato urinario es funcionalmente normal cistoscópica y radiográficamente. Dilatación pieloureteral que existía antes de la operación ha cedido considerablemente, como se ha comprobado en la última pielografía.

Segundo caso:

Enferma de 43 Años, delgada, y de aspecto saludable. Fístula postoperatoria uretero-vaginal del lado derecho. Deliberadamente hice la incisión paramediana derecha con el propósito de usar el apéndice como material plástico si así fuera posible. La operación y el curso postoperatorio fueron satisfactorios.

Está perfectamente bien desde hace 3 años y cinco meses. En la cistoscopia se confirma que el apéndice implantado en la vejiga eyacula orina en forma normal.

Tercer caso:

Enferma de 52 años, de constitución media. Caso similar a los anteriores, se resolvió en forma parecida. Ciego fijo. El apéndice quedó estirado y un poco doblado. Presentó fiebre, infiltración de orina y absceso. La herida se abrió y eliminó el apéndice esfacelado estableciéndose fístula

en la pared abdominal. Después de unos meses del fracaso quirúrgico se resolvió la situación en otra forma.

Cuarto Caso:

Hombre de 70 años, diabético, mal estado general. Presenta fístula de la pared abdominal consecutiva a operación para extraer cálculo ureteral enclavado. Riñón izquierdo muy deficiente. Tendencia a cerrarse la fístula, con producción de cólico ureteral.

Un intento de urétero-cisto-neostomía fracasó. Practiqué la plastia con apéndice. Aparentemente hubo éxito, pero no se pudieron hacer estudios comprobatorios porque su estado general continuaba siendo malo. A las 6 semanas murió de infarto cardíaco.

Quinto Caso:

Enferma actualmente hospitalizada todavía; 40 años; en buen estado general, presenta fístula consecutiva a histerectomía radical practicada 14 meses antes. Practiqué laparatomía para comprobar el estado de los tejidos desde el punto de vista neoplástico. No se encontraron signos de recidiva, pero sí había una intesísima fibrosis, que dificultó extraordinariamente la localización del cabo del ureter. La enferma entró en Shock y tuve que cerrar la pared rápidamente, dejando en el uréter una sonda que se hizo salir por una pequeña incisión en la fosa iliaca derecha. A las 6 semanas uréteroplastia con apéndice cecal. A los 6 días la herida operatoria supuró y se abrió en toda su extensión; sin embargo el apéndice continuó viable y la enferma está orinando por vías naturales; la herida vá cicatrizando por granulación en forma satisfactoria.

No incluyo en esta casuística un intento de uso de esta operación que no se llevó a cabo por comprobar en el transoperatorio que el apéndice era atrofico, teniéndose que recurrir a otro procedimiento.

RESUMEN:

Se presenta una técnica de ureteroplastia originada en Guadalajara, México en la cual se emplea como material plástico el apéndice cecal provisto de todas sus conexiones.

Se han intervenido 5 casos con este procedimiento.

Se informa sobre resultados.

BIBLIOGRAFIA:

1. Bacon and Rowe — Pre and Postoperative in Surgery of the Lower Urinary Tract, J.A. IV, 10.
2. Baum, W. G. — The clinical use of terminal ileum as a substitute ureter. J. Urol., 1954, 72:16.
3. Bitker, M. P. — Les uretero-ileo-plasties; J. Urol., — Med., Paris, 1954, 60:473.

bladder by a flap method; J. Urol., Balt., 1947.

Doctors, Words, Controls

Robert D. Smith, M.D.

According to Thomas M. Cooley II, Dean of the School of Law, University of Pittsburgh, "A major and malignant disease has taken hold in the body of American education: The graduates of our colleges, including our best ones, cannot write the English language." The author of this article presents some of the common manifestations of this disease in medical literature and writes his prescription to combat it. Some of the ingredients of Dr. Smith's prescription will undoubtedly provoke dissenting opinions. At least the Editors hope the letter box will be crowded.

NEW MEDICAL words and terms are being produced at the rate of about 1000 each year. Unfortunately, many are invented merely for the sake of inventing. This process will lead to increasing difficulty in literature until chaos may force the establishment of an international body with power to regulate and control general medical nomenclature.

This deliberate over-production greatly adds to the difficulties of all students and usually is unnecessary. It certainly reduces the speed, ease and pleasure of reading while the reverse condition should prevail.

It is now a common experience when reading general medical reports to have to stop and decipher or define some new term or word. Often the new invention is found only with difficulty, or not at all, as its origin is very recent or the term is not of sufficient value to be generally adopted.

Many of these new productions will never be accepted due to vagueness, inaccuracies, difficulty in spelling or use. The medical condition associated with some new words often is so rare as to have little practical value.

The very essence of this affectation, i.e. "false show", is where the author gives the common and often the proper meaning of the new invention in parenthesis immediately after introducing the creature.

No one can deny that medical literature, vast, complex and rapidly growing, is needlessly repetitive. Articles are abstracted, summarized, reprinted complete and incomplete. This condition, with the frequent introduction of new words, presents an almost impossible situation

to all medical students, especially the recent graduate.

The scope of this problem can be judged by the fact that total medical knowledge is doubled about every eight years.

Why should the entire profession be penalized by the vanity of writers who throw in these verbal road blocks just for the sake of novelty?

Specialization greatly increases this tendency and thereby automatically reduces reader interest. Specialists are also often guilty of using jargon or peculiar phraseology.

Freedom to coin new words must always be granted as knowledge increases, however, if equal value and meaning are present in "old" words they should be used.

Following are a few examples taken from current literature:

Byssinosis, — "cotton dust disease," is easier and sufficient.

Sjogrens syndrome, — wouldn't "dry conjunctivitis" be better?

Eunoia, simply means normal mental health — why not use the more simple expression?

Pierre-Robin syndrome; couldn't this unusual condition be called "chin syndrome"?

Sheehan's syndrome is much easier to recognize by the complete title of post partum hypopituitarism or "PPH" for easy abbreviation.

Tensitropic, meaning to nourish tension, would be more accurate as "anti tension".

Long terms such as epidemic keratoconjunctivitis type 8, can be known as EKC-8, especially when the condition is under active discussion.

Closed chest cardiac massage is excellent usage. It could be shortened to "CCC" massage.

The proper spelling of "Laennec" recently

Phoenix, Arizona.

occupied a page in the A.M.A. Journal. It would seem sensible under present circumstances to limit historical references to books devoted primarily to that subject.

"Mimeae," organism is good descriptively but why not make it easier and clear as "mimic"?

"Iatrogenic" is a new term for doctor induced symptoms; "paschontogenic" for patient induced symptoms. The value of these two new words is doubtful; change does not always imply improvement.

If further weight is needed to emphasize the need to voluntarily limit medical terminology, the present Senate Investigating Committee headed by Senator Kefauver happily supplies it. The Senator believes the government should have the power to select new names in reference to drugs and would amend the present patent laws to aid in the necessary control and enforcement.

Since the introduction of new words is inevitable, the following principles are suggested:

1. New words should be clear, concise and

free from possible confusion or ambiguity.

2. The word should be descriptive of the matter referred to.

3. A new word should be as short as possible, easy to spell and reasonably euphonious.

4. New words should not be coined to replace a simple word now in common use.

5. Avoid romantic, mysterious or esoteric implications.

6. Spelling and derivation must conform with accepted practices. New words need not necessarily evolve from Greek or Latin.

7. Letter abbreviations, as the examples given above, "PPH" or "EK-8", are acceptable when the subject is frequently referred to.

Is a medical dictionary to become indispensable standard equipment for all medical reading?

Will a control board be necessary to regulate medical words?

Next: Origin of Medical words.

AUTHOR'S NOTE: Since this article was submitted for publication the A.M.A. has reported the first action of a committee on medical terminology.

INSTITUTE OF EXPERIMENTAL MEDICINE AND SURGERY UNIVERSITY OF MONTREAL

The research library of the Institute of Experimental Medicine and Surgery of the University of Montreal has suffered extensive losses due to destruction by fire. Readers of ARIZONA MEDICINE are requested to send all available reprints of their work, especially those dealing with ENDOCRINOLOGY and STRESS, to:

Hans Selye, Professor and Director
Institute of Experimental Medicine
and Surgery, University of Montreal
P.O. Box 6128, Montreal 26, Canada

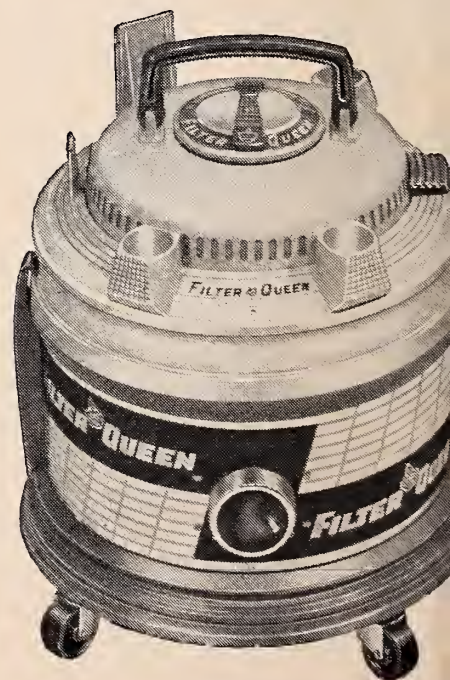
The permanent mailing list was also destroyed, so requests should be made to the above address for reprints of publications desired.

The National Medical Foundation for Eye Care in association with the American Medical Association has presented to the Ways and Means Committee of the House of Representatives information regarding the desirability of deleting the words "or by an optometrist, whichever the individual may select . . .". This suggestion was made in reference to paragraph 12 of Section 1602 (a) of H.R. 10032 which is a bill to extend and improve public assistance and child welfare programs of the Social Security Act. It was also suggested that these words be deleted from Section 1002 (a) (10) of the existing Social Security law. In these two documents the following words appear: "in determining whether an individual is blind (for purposes of federal-state aid to the blind) there shall be an examination by a physician skilled in the diseases of the eye or by an optometrist whichever the individual may select."



- 1** Worcester City Hospital
Worcester, Mass
- 2** Fresno Community Hosp.
Fresno, California
- 3** Los Angeles Cty. Gen. Hosp.
Los Angeles, California
- 4** Massachusetts Mem. Hosps.
Boston, Massachusetts
- 5** Port Huron H
Port Huron, M

REASONS WHY THEY DO*





6 Grant Hospital
Columbus, Ohio

7 Nat'l Railways of Mexico Hosp.
Mexico City, Mexico

8 St. John's Memorial Hosp.
Anderson, Indiana

9 Grady Hospital
Atlanta, Georgia

10 St. Francis Hospital
San Francisco, California

1 **Thoroughness**... Filter Queen's sustained peak suction power means a complete cleaning job.

2 **Silence**... Filter Queen was described in the AMA Journal as the quietest vacuum cleaner tested.

3 **Compactness**... Filter Queen is a sensible size, making it easy to store when not in use.

4 **Speed**... Filter Queen substantially reduces the time necessary to clean an area.

5 **Versatility**... Filter Queen shampoos, waxes and polishes, as well as cleans.

6 **Filtration**... Filter Queen actually filters the air, gives maximum protection against dust.

7 **Sanitation**... Filter Queen traps and holds dust and dirt, never scatters them.

8 **Convenience**... Filter Queen has no bag to empty, so there's no dirt to touch, no dirt to see.

9 **Deodorization**... Filter Queen enables hospital areas to be deodorized while they're being cleaned.

10 **Durability**... Filter Queen is built to last... unconditionally guaranteed by the manufacturer.

*These 10 hospitals are just representative of the numerous hospitals throughout the continent who have learned that Filter Queen is without question, the finest sanitation system for hospitals and homes. *Call the Filter Queen dealer in your area, or write Health-Mor, Inc., Filter Queen Division, 203 N. Wabash, Chicago 1, Illinois. Look in the Yellow Pages.*

Filter Queen

HOME SANITATION SYSTEM

A Product of Health-Mor, Inc.

In Mexico: Industrias Filter Queen S.A., Av. Insurgentes #194,
Mezanine, Mexico 7, D.F.

In Canada: Filter Queen Corp., Ltd. 252 Victoria St., Toronto 1, Ont.



"All the world's a stage...
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7

through all seven ages of man

VISTARIL®

effective anxiety control
with a wide margin of safety

in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King¹ found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,² who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION

HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION

HYDROXYZINE HYDROCHLORIDE

Science for the world's well-being®



PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

New York 17, New York



IN BRIEF

VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL Parenteral Solution (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL Capsules (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL Oral Suspension (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

Science for the world's well-being®



PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

New York 17, New York

"Dear Doctor

In your busy night-and-day preoccupation with other people's lives, it is very difficult for you to find time to think about your own future.

Yet face it you must for the sake of your family.

We urge you to join with our many other friends and customers of the medical profession, and arrange for a visit—with your lawyer—to our Trust Department.

Discuss your estate plans in detail. Let an experienced Trust Officer show you how the group-judgment of specialists in the Trust field will insure your estate being handled soundly, economically—and to the letter of your Will.



TRUST DEPARTMENT

Security Building, Phoenix

Resources \$750 Million

DIAGNOSIS: Cystitis



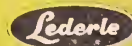
THERAPEUTIC NEED: Suppression of the bacteriuria.

ANTIBIOTIC: DECLOMYCIN[®]
Demethylchlortetracycline Lederle

because it provides effective antibacterial activity in the urinary tract.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



Annual Meeting — 1962

Juan E. Fonseca, M.D.

The date for the next meeting of the Medical Society of the United States and Mexico has been definitely set for December 5, 6, and 7, 1962. The Tideland Hotel, Tucson, Arizona will host the conclave.

The Program Committee Co-Chairmen are Drs. Robert Class and Louis Young, of Tucson. Mrs. Max Costin and Mrs. Hiram Cochran, also of Tucson, will be Co-Chairmen of the Ladies Committee.

Dr. W. E. Ahrens, of Tucson and Dr. I. Chavez, of Guadalajara, Mexico are Co-Chairmen of the Educational Committee, an ambitious group which is developing a program of activities for the next few months. A full report of their functions will be given at the meeting.

Emphasis will be placed on our next program on symposia and round table discussions; clinics will probably also be introduced. The former were very popular at our last meeting in Hermosillo.

'B. W. & Co.' 'Sporin' Ointments
rarely sensitize . . .
give decisive bactericidal action
for most every topical indication

'CORTISPORIN'[®]

brand Ointment

Broad-spectrum antibacterial action—plus the soothing anti-inflammatory, antipruritic benefits of hydrocortisone.

The combined spectrum of three overlapping antibiotics will eradicate virtually all known topical bacteria.

'NEOSPORIN'[®]

brand Antibiotic Ointment

'POLYSPORIN'[®]

brand Antibiotic Ointment

A basic antibiotic combination with proven effectiveness for the topical control of gram-positive and gram-negative organisms.

Contents per Gm.	'Polysporin' [®]	'Neosporin' [®]	'Cortisporin' [®]
'Aerosporin' [®] brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ¼ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ¼ oz. (with ophthalmic tip)	Tubes of ½ oz. and ¼ oz. (with ophthalmic tip)



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

asthma attack averted
... in minutes



patient protected
... for hours



Nephenalin[®]

(the dual-action anti-asthmatic tablet)

... works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, $\frac{3}{8}$ gr.; phenobarbital, $\frac{1}{8}$ gr.

Dosage: Hold one NEPHENALIN tablet under the tongue for five minutes to abort the asthmatic attack promptly. Then swallow the tablet core for four full hours' protection against further attack. Only one tablet should be taken every four hours. No more than five tablets in 24 hours.

Supplied: Bottles of 50 tablets. For children: NEPHENALIN Pediatric, bottles of 50 tablets.

Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & Co., INC., New York 17, N.Y.



Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans

confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Smith Kline & French Laboratories 

Thorazine®

brand of chlorpromazine

A fundamental drug
in both office and hospital practice

Posed by professional models.

For prescribing information, please see PDR or SK&F literature.

*The cigarette
that made the filter famous!*



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

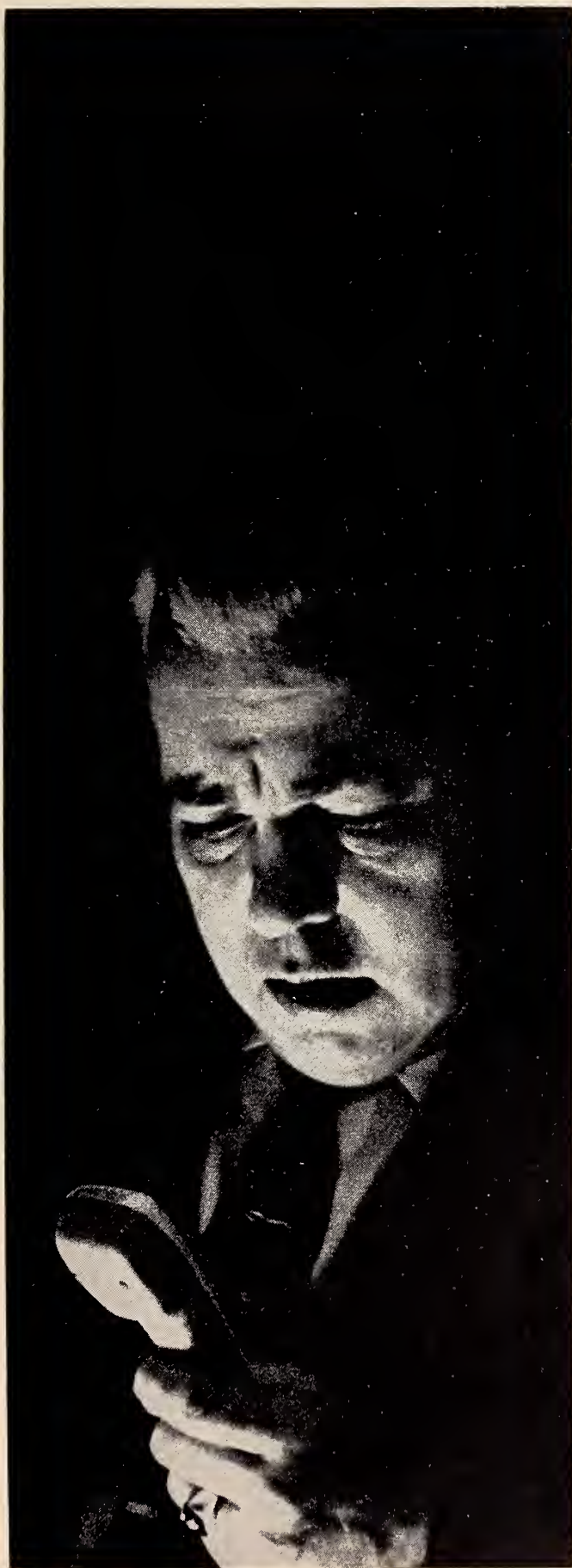
Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

**Your taste buds will tell you why
you'll feel better about smoking
with the taste of Kent.**

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.



Day and night— less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild sedation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl . . .	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

New **ISUPREL**® compound **ELIXIR**

Winthrop

LABORATORIES
New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.



"Feel any different now, Mr. S.?" "I thought nothing was happening, Doctor... but then my wife saw a change... said I wasn't fighting all the time. People at the office seemed easier to work with." "How about drowsiness?" "No, not when I need to stay awake."

In the treatment of mild to moderate tension and anxiety, the normalizing effect of TREPIDONE leaves the patient emotionally stable, mentally alert. Adult dose: One 400 mg. tablet, four times daily. Supplied: Half-scored tablets, 400 mg., bottle of 50.

this could be your "anxiety patient" on

TREPIDONE
MEPHENOXALONE LEDERLE

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



Leslie B. Smith, M.D.



Leslie B. Smith, M.D.

The extensive activities of your Association are described in the reports of the officers and the committees and briefed in the minutes of the committees and the Board of Directors.

A narrative description of my activities would be voluminous, hence, I will present, in outline, some of the action, with a few brief comments.

BUSY!
AVERAGE TIME PER DAY—four hours—Why?
FIVE (5) BOARD OF DIRECTORS Meetings — (one to go).
DURATION — 1, 17, 8, 5, 5 Hours (All Sundays except first).
MINUTES IN BRIEF — 7, 17, 27, 16 pages and a five hour discussion
Re: Proposed Revision of the Arizona Medicine and Surgery Act.
FIVE (5) EXECUTIVE COMMITTEE Meetings (one to go) — 18 hours.
OTHER COMMITTEE MEETINGS — (Most not attended).
CIVIL DEFENSE — Excellent — now off the ground — four hours.

MEDICAL ECONOMICS (2) — Eight hours — Kennecott Copper Corp. International Union of Mine Mill and Smelter Workers

Arizona Med. Jr., Jan. 1962—"A Milestone"

Arizona Med. Jr., Feb. 1962 — This report prompted a member to comment — "I am amazed at the amount of time such activities as this must require of the officers of our Association. I bet very few doctors know of, or appreciate, what you actually do for us!"

MEDICAL SCHOOL COMMITTEE — (Dare we mention it?)

FORMAL MEETINGS — Six hours

INFORMAL DISCUSSION — xxxx hours.

VOLUMES OF REPORTS — letters — more reports.

PROBLEM — How to hold a functioning Association together and at the same time promote a Medical School in our State??

(If an excuse is in order for any deficiencies in the attainments of your Association for the year — I propose that the division in thought-action precipitated by the Medical School issue and the transfer of this division to other activities was the most significant deterrent.)

TRAVEL: New York City (Eight days), Miami, Florence, Flagstaff, Prescott (two times)

The President's Page

Yuma, Chandler, Tempe, Tucson (four times), Chicago, Casa Grande (two times), Wickenburg, and Glendale.

SPEECHES: 23 major — prepared and delivered (ghost-writer needed). County Society — 7, Lions, Rotary — 2, Arizona Lic. Practical Nurses, Arizona Nurses Assoc., Arizona Hospital Association, Arizona Student Nurses Association, Arizona Med. Association — 2, Woman's Aux., Public Relations Executives, Hiram Club, W.H.A.M., Speakers Bureau, Arizona Medical Assistants Assoc., Forum.

MONTHLY "PRESIDENT'S PAGE," Arizona Medical Journal.

Compiled and authored — statement for the House Ways and Means Committee, U. S. Congress (Ariz. Med. Jr., Oct. 1961 and Hearings Before the House Ways and Means Committee on HR 4222, Vol. 2, page 2068, 1961). Directed and M.C'd the two day work shop W.H.A.M. and Speakers Bureau, March 1962. Very successful with twelve non-medical groups participating. Attended 18 breakfasts, luncheons, and dinners for recognition only. Reviewed reams of correspondence, statements, proposals, articles, legislative bills, minutes, booklets, etc.

HIGHLIGHT: The three-bow applause from the members of the Arizona Student Nurses Association in appreciation of the opportunity to hear and discuss "the other side."

LOW POINT: "The Brainwashed Doctor" — Arizona Med. Jr., Aug. 1961.

DISAPPOINTMENTS:

Poor attendance at many committee meetings.
Lack of funds for unbudgeted projects.
Expenditures in excess of budget.
Weak legislative activities at State level.

CONCLUSIONS: A good year for Arizona Medical Association but not exceptional. We have become adult. However, we have not wholly accepted our position of responsibility. We are in that awkward in-between stage which requires full activity. However, our relatively small membership evokes a greater cost and work-load per member. This, we will outgrow. In the meantime, we should take exceptional pride in the fact that we are able to keep up with and, in many aspects, exceed the accomplishments of the "bigger boys." Without the dedicated unselfish services of our Executive Staff, and those about them, we would have failed many times. Did you ever stop to appreciate the versatile character of those who each year are capable of maintaining the best of the past while at the same time successfully adjusting to the ambitions and zeal of newly elected officers with skillful acknowledgment of the manifest whims of each new boss?

A few committees functioned well and deserve our thanks, but most committees did not accept their true responsibility.

We must revise our concept of our Leg. Comm. and grant it more authority and freedom of action.

This has been a broadening experience. I am deeply gratified. Only history will full reveal how much my efforts have effectively contributed to the advancement of the science and art of medicine and the distribution of the best medical care to the greatest number with just consideration of the greatest numbers.

THINK IT OVER

"Too often the critic thinks you should do it just as he would do it — if he could!"

PHARMACEUTICAL CONTRIBUTIONS TO MEDICINE

Present indications are that in the sixties our growth will be even more fabulous than it was in the fifties and the forties. In that two-decade period more effective new drugs to prevent, diagnose and treat countless illnesses were discovered than in the entire period of recorded medical history. Do you realize that 80 per cent of the prescriptions now written could not have been prescribed 10 years ago, that 1 and ¼ million American are alive today because of new treatments in the past 10 years, and that five years have been added to man's lifespan in the last few decades. — Leonard W. Larson, M.D., President, American Medical Association, to American Association of Medical Assistants.

For your elderly patients...

an effective

GERIATRIC antiarthritic with distinctive Safety Factors

When arthritis afflicts the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions . . . such as osteoporosis, hypertension, edema, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,¹ Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive **safety factors**: its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. **It has no contraindications except personal idiosyncrasy.**

¹ Ford, R. A., and Blanchard, K: *Journal Lancet* 78:185, 1958.

Formula: In each persian-rose enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:

PABALATE, when sodium salts are permissible.

PABALATE-HC, for conservative steroid therapy.

A. H. ROBINS CO., INC. • Richmond, Virginia



Pabalate-SF

— the new, convenient way to prescribe PABALATE-SODIUM FREE

arthritis — and
osteoporosis

arthritis — and
hypertension

arthritis — and
hyperglycemia

arthritis — and cardiac
insufficiency



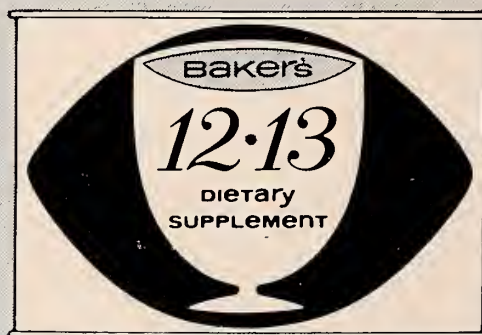


NEW!

Baker's

12·13

DIETARY SUPPLEMENT



ABATES "UNCERTAIN NUTRITION"

New BAKER'S 12-13, a combination of essential nutrients, offers an effective aid for management of short-term or long-term supplementation in a wide variety of nutritional problems.

BAKER'S 12-13 is indicated for:

- geriatric patients
- pregnancy and lactation
- underweight and malnourishment
- pre- and post-surgical patients
- convalescence
- alcoholics
- ulcer patients
- dieting patients
- patients unable to take solid foods

Baker's 12-13 is an economical, balanced composite of all known dietary essentials: protein—fat—carbohydrate—minerals—vitamins.

When "nutrition is uncertain" . . . prescribe BAKER'S 12-13 for your patients.

COMPOSITION AND DIRECTIONS

Skim milk	Sucrose	Niacinamide
Non-fat milk solids	beta carotene	Tocopherols
Corn oil	Vitamin D ₃	Pyridoxine
Soy oil	Ascorbic acid	hydrochloride
Soy flour	Thiamine	Iron ammonium citrate
	hydrochloride	Artificial flavor
Approximate analysis:	Protein (N x 6.38)	30.1%
	Fat (Cholesterol-free)	10.4%
	Carbohydrate (by difference)	50.1%
	Ash	5.4%
	Moisture	4.0%

DIRECTIONS: Stir 4 heaping table-spoonfuls of 12-13 (2 oz. powder) into 8 oz. of water in a glass or bowl. Each delicious serving provides:

		% of R.D.A.*
Calories	230	10%
Protein	17 Gm.	25%
Fat	5.7 Gm.	**
Carbohydrate	27.5 Gm.	**
Calcium	475 mg.	60%
Vitamin A	1250 units	25%
Vitamin D	100 units	25%
Vitamin E	2.5 units	**
Vitamin C	35 mg.	50%
Thiamine	0.6 mg.	50%
Niacin	5.0 mg.	50%
Riboflavin	0.7 mg.	40%
Vitamin B ₆	2.0 mg.	**
Iron	5.0 mg.	50%

*Recommended Daily Allowances, National Research Council.

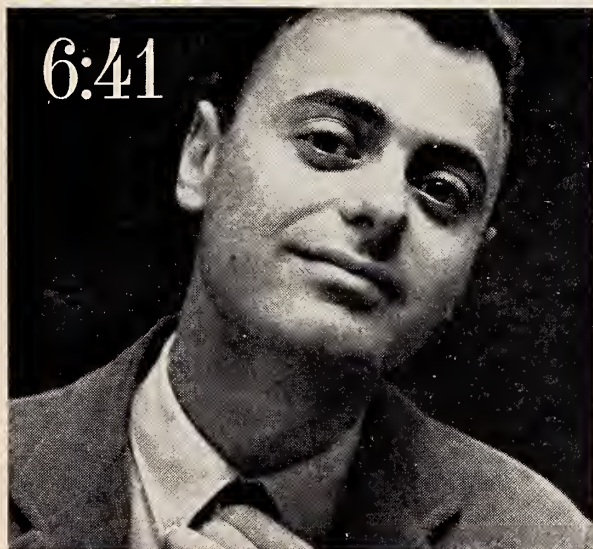
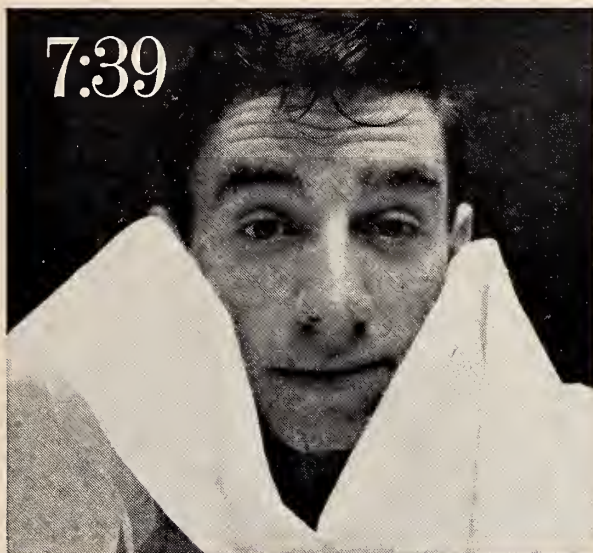
**Not established.

Baker's 12-13 is available in attractively packaged 12 oz. cans. Sold only in drug stores.

THE BAKER LABORATORIES, INC.

Quality Nutritional Products—for over a quarter of a century

CLEVELAND 15, OHIO



In acne—24-hour-a-day skin care with antibacterial pHisoHex®

(contains 3% hexachlorophene)

In acne, pHisoHex, antiseptic detergent, provides *continuous* antibacterial action against the infection factor. With exclusive, frequent use, pHisoHex builds up an effective antibacterial film on the skin that resists rinsing—lasts from wash to wash. pHisoHex augments any other therapy of acne.

When pHisoHex was used for washing by 42 patients with acne, "the results were uniformly encouraging. . . ." "No patient failed to improve."¹

pHisoHex cleans the skin of acne patients better than soap because it is forty per cent more surface active. It is a powerful emulsifier of oil, an action particularly beneficial in acne. Moreover, it cleans the orifices of the sebaceous glands, sweat glands and hair follicles more rapidly and more thoroughly than soap. pHisoHex lacks the

potentially harmful qualities of soap. It is non-alkaline, nonirritating and hypoallergenic.²

For acne, prescribe pHisoHex—and get improved results.

pHisoAc® Cream dries, peels and masks lesions. Use it with pHisoHex washings to help prevent comedones, pustules and scarring. Contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent and hexachlorophene 0.3 per cent.

pHisoHex is available in unbreakable squeeze bottles of 5 oz. and 1 pint—and in combination package with pHisoAc Cream.

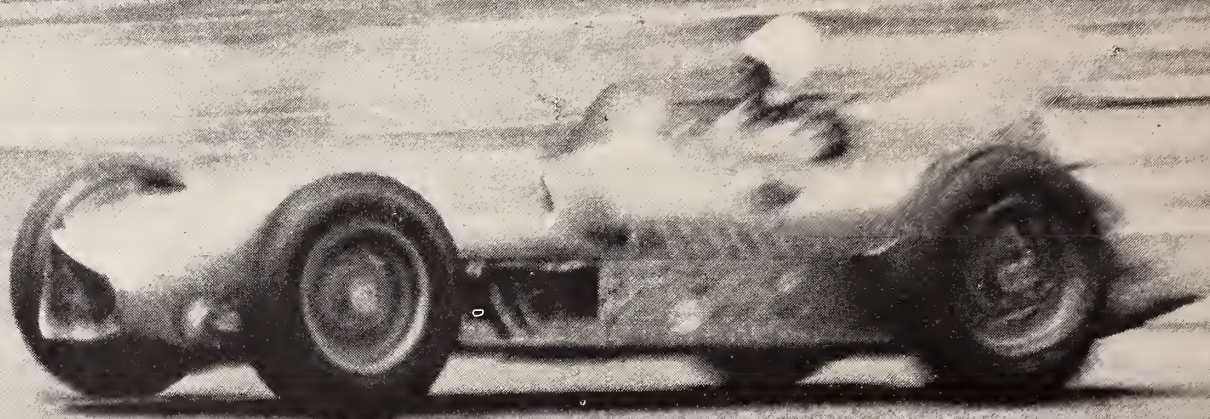
1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

Winthrop

LABORATORIES
New York 18, N.Y.

(1665M)



PERCODAN BRINGS *SPEED*...DURATION...
AND DEPTH TO ORAL ANALGESIA

in the wide middle region of pain

PERCODAN®

(Salts of Dihydrohydroxycodoinone and Homatropine, plus APC) TABLETS

fills the gap between mild oral and potent parenteral analgesics

■ acts in 5-15 minutes ■ relief usually
lasts 6 hours or longer ■ constipation
rare ■ sleep uninterrupted by pain

Literature on request



ENDO LABORATORIES
Richmond Hill 18, New York

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodoinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodoinone HCl, 0.38 mg. dihydrohydroxycodoinone terephthalate (warning: may be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

*U.S. Pats. 2,628,185 and 2,907,768



makes glaucoma screening easier

"Since approximately 3 to 4 per cent of those patients in the forty-and-over age group may have glaucoma, the value of a routine measurement of the intraocular pressure is self-evident."¹

Screening tonometry for early detection of glaucoma can be incorporated conveniently into any physical examination procedure when the eye is anesthetized with OPTHATHINE, the topical anesthetic with the shortest onset time. Instillation of 1 or 2 drops produces adequate anesthesia in approximately 20 seconds or less.^{2,3} OPTHATHINE anesthesia is completely safe, because the drug does not damage the corneal epithelium and seems to be less irritating than other agents.^{4,5,6} The duration of anesthesia (about 15 minutes) is adequate for removal of foreign bodies and similar operative procedures. In fact, the properties of OPTHATHINE make it ideal for any ophthalmologic procedure requiring topical anesthesia.

SUPPLY: Opthathine is supplied as a sterile 0.5% solution in plastic drop-dispensing bottles containing 15 cubic centimeters. REFERENCES: 1. Gordon, D.M.: *New York J. Med.* 61:3649 (Nov. 1) 1961. 2. McIntyre, A.R.; Lee, L.W.; Rasmussen, J. A.; Kuppinger, J.C., and Sievers, R.F.: *Nebraska State M.J.* 35:100 (Apr.) 1950. 3. Boozan, C.W., and Cohen, I.J.: *Am. J. Ophthalm.* 36:1619 (Nov.) 1953. 4. Jervey, J.W.: *South M.J.* 48:770 (July) 1955. 5. Leopold, I.H.: in Modell, W.: *Drugs of Choice*, 1960-1961, St. Louis, C.V. Mosby Co., 1960, page 699. 6. Linn, J.G., Jr., and Vey, E.K.: *Am. J. Ophthalm.* 40:697 (Nov.) 1955

SQUIBB



Squibb Quality—the Priceless Ingredient

SQUIBB DIVISION  Eli Lilly

OPHTHATHINE

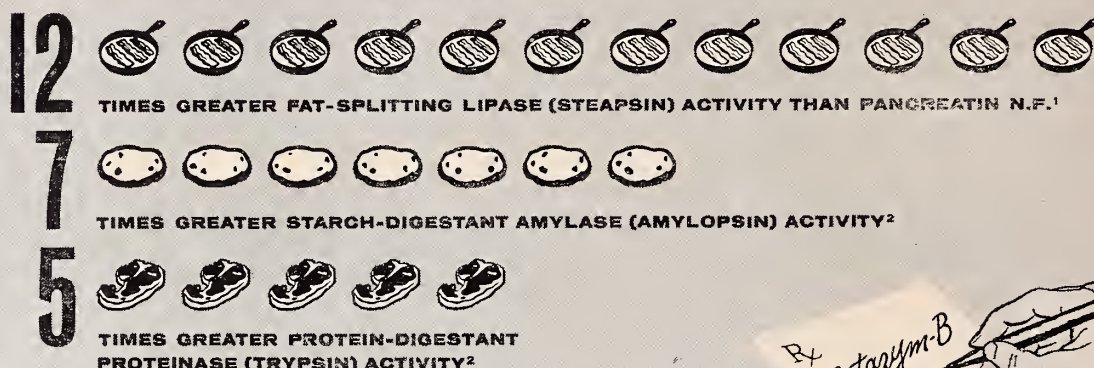
Opthathine® is a Squibb trademark

SQUIBB PROPARACAINE HYDROCHLORIDE

Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!

Cotazym-B supplies



- PLUS BILE SALTS TO AID IN DIGESTION OF FAT, AND CELLULOSE TO AID IN DIGESTION OF FIBROUS VEGETABLES



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin* —“the most potent pancreatic extract available”³—is a concentrated pancreatic enzyme preparation developed by Organon.⁴ It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.^{1,4,5,6,7,8} COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.



REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: *South. M.J.* 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., *Am. J. Gastro.* 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: *Chicago Medicine*, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: *N. Y. St. J. Med.* 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym-B[®]

Lipancreatin Bile Salts Cellulase

MENTAL FITNESS

An act is not worth doing if it is initiated by more than one intent. Nervousness is a warning when this rule is being broken.

Suppose a surgeon is going to examine a patient. He wants to make a good impression. He hopes to enhance his reputation in general and with particular regard to the referring physician. He expects a fee. He may be feeling (or projecting) some competitiveness with other surgeons. One could go on enumerating and elaborating his motives.

He had better pause and think. It is an exercise of intelligence to select one sufficient reason for his examination — to find out what is wrong with the patient. Mindful of this he can proceed. Any ancillary motives can be recognized and then disregarded. His singleness of purpose will be rewarded by unselfconsciousness, by freedom from needless anxiety and by increased efficiency.

Mental strength requires practice in isolating the appropriate purpose for each act. Mental weakness of an individual can almost be measured by the complexity of his motivations. A neurotic patient comes to the doctor's office to prove that she is "really sick;" to defend herself against the accusation that she is not. She wants to see if the doctor is as personable as she has heard. She will solicit from him the sympathy which her family withholds. She will symbolically fulfill some of the dependency longings of her childhood. She will subtly demonstrate her need for special attention and her ability to manipulate authority figures. No wonder she is nervous if she is trying to accomplish all these ends in the one appointment!

It is a common mistake to believe that will power is strengthened by additive motives. An alcoholic says that he will try to quit drinking — for the sake of his wife and children. He will

ARIZONA MEDICINE



ARIZONA MEDICINE

Darwin W. Neubauer, M.D.Editor
Margaret McMahonSecretary to the Editor
720 N. Country Club Rd., Tucson, Arizona

ASSISTANT EDITORS

Robert CarpenterArizona Medical Association Reports
Richard L. Dexter, M.D.
Joe E. Ehrlich, M.D.
Mayer Hyman, M.D.
Clarence L. Robbins, M.D.
Preston J. Taylor, M.D.Original Articles
Juan E. Fonseca, M.D.
Augusto Ortiz, M.D.Medical Society of the
Byron BrowderUnited States and Mexico
Lindsay E. Beaton, M.D.
R. Lee Foster, M.D.
William B. McGrath, M.D.
Leslie B. Smith, M.D.Editorial Section
Howell S. Randolph, M.D.In Memoriam
Andre J. Bruwer, M.D.Reprints
John W. Kennedy, M.D.
Paul J. Matte, Jr., M.D.Historical Section

ASSOCIATE EDITORS

Charles W. Elkins, M.D.Neurosurgery
A. K. Hansen, M.D.Ophthalmology
Louis G. Jekel, M.D.Dermatology
Robert Lacock, M.D.Ob-Gyn.
C. Thomas Read, M.D.Chest Surgery
Wallace A. Reed, M.D.Medical Economics
Gerd Schloss, M.D.Pathology
Paul L. Singer, M.D.Genito-Urinary
Hugh H. Smith, M.D.Public Health
Alvin L. Swenson, M.D.Orthopedics
William G. Ure, M.D.Tuberculosis
Roger F. White, M.D.Pediatrics

Editorials of Arizona Medicine are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

ADVERTISING AND SUBSCRIPTION OFFICES

Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

"The material in this journal is not copyrighted. We would like to ask that anyone using material from it note the previous publication in ARIZONA MEDICINE."

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

Editorials

no longer jeopardize his career. He will save money and safeguard his health. He will try not to be a disappointment to us. No; the need to quit drinking speaks for itself! All the other "reasons" are too complicated and external. They only weaken and confuse his resolution. They must be set aside.

The reasons for a fact do lure our attention and intention away from the fact. The criminal has many and cogent reasons why he got in trouble. By portraying himself as a victim of circumstances, he may excite our genuine pity. But we finally infer that, given a comparable set of circumstances, he would again transgress. We wait in vain for him to discover, among all his explanations, the single principle that it is wrong to steal. This principle needs no reinforcement.

No one antagonizes us more than the person whose behavior has mixed and unclear intentions. When you go to buy a suit you want the salesman to sell you a suit. It distracts and annoys you when he simultaneously tries to sell himself. It disgusts you when some amateur psychologist "interprets" it to mean that you are concealing your inadequacy or covering your shame. It alarms you when the hysteric in your neighborhood insists that you "must" have purchased the suit to attract her notice!

The sufficient and appropriate purpose of an act is precisely illuminated by a sense of immediacy. Preoccupations and motivations which are vaguely remote in time and space both weaken the mind and devalue reality. One might indulge a play on words: confusion of tense causes tension. The undisciplined mind mixes the past tense and the future with the present. The anxious individual cannot take time (literally) to enjoy this situation, this friendship, this meal, because it may be not available tomorrow. Another says, "I am an adulterer," whether he committed adultery one or twenty years ago. The alcoholic is "going to" quit drinking. The greedy person will relax when he has more money in the bank.

One's ego boundaries are reinforced by direct and intimate contact with the present. One cannot ever really touch or be touched by anything or anyone in the past or future, only in the present. The mind had better stay near the body in time and space.

Attention to the matter at hand is again an act of the brain, an exercise of intelligence. The

mind is not just a passive, absorbent tissue, a "tabula rasa." The mind, like the body, develops strength and suppleness according to its current functioning.

It is the intelligent appraisal of the immediate situation which determines the purpose and therefore the quality of one's behavior. It is the everyday exercise of such intelligence which promotes mental fitness.

William B. McGrath, M.D.

EDITOR'S NOTES

When a Massachusetts jury sought to penalize a physician for refusing to heed a patient's demand for a house-call, the judge set aside the verdict on the grounds that no lay court has the right to judge the soundness of a physician's medical judgment in such circumstances.

In his charge to the jury the trial judge made it plain that a physician "is not required to accept professional employment on terms determined by the patient but may limit his obligation by undertaking to treat or care for the patient only in a hospital . . ."

A Florida District Court of Appeals recently ruled that pediatricians may be held to higher standards than other practitioners. In a recent cast, the court declared: "Naturally a higher degree of care is required in attending a new-born baby than an adult."

"The Physician's Legal Brief"

Vol. 3, No. 9, Sept. 1961

* * *

" . . . in order to produce significant carrier states with respect to *S. aureus*, exposure must be direct, heavy and continuous."

"Hospital Focus"

Oct. 1, 1961

* * *

For the average location in a hospital, the bacterial count, according to Greene, is 35 per cu. ft. of air. After cleanup this is reduced to 3 per cu. ft. Depending on location within the hospital, the range of bacterial counts can be tremendous, from an average of 20 per cu. ft. in corridors and waiting rooms to 93 in dressing rooms.

"Microbiology in Hospitals"

by V. W. Greene,

Maintenance-Sanitary Supplies

6:32 (Aug.) 1961

The use of residual disinfectants and fogging devices enables an OR to be reused in "... as little as two hours after a dirty case has been operated."

"Disinfection of Operating Room"
by C. U. Letourneau,
Hospital Management
92:22 (July) 1961

* * *

"Disposable plastic gloves to be worn while changing dressings were found suitable for routine use throughout the hospital. Surgical dressing carts used for the rest of the hospital were forbidden in the isolation ward."

"Hospital Focus"
Oct. 1, 1961

* * *

In acute pancreatitis, amylase values may remain positive for five or six days in the peritoneal field.

With cystic duct obstruction, one in four will

persist in having this obstruction; and of that one in four, one in two with a persisting obstruction will have some leakage. Free perforations are extremely rare, undoubtedly less than one per cent; but there is probably some leakage of bile in about 15 per cent of cases of acute cholecystitis.

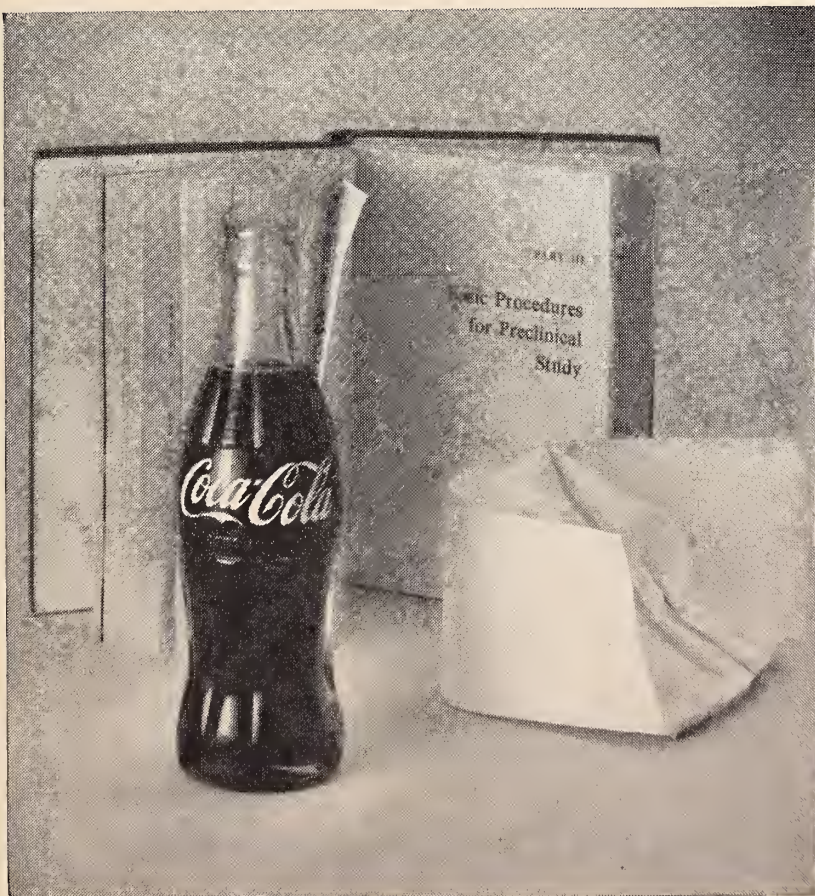
* * *

(Following notes are taken from *Medical World News*, November 24, 1961, Vol. 2, No. 24, "Solid Tumors Yield to Chemical Attack")

"Dr. Sidney Farber . . . 'Chemotherapy should be used early when metastases are found and not reserved until the patient is moribund.'"

* * *

"Dr. Byron E. Hall . . . 5-FU has a 'wider spectrum of activity against various types of human cancer than any other agent now available.' . . . 'provided the initial course of therapy is adequate and is followed by a maintenance program'."



When too many tasks
seem to crowd
the unyielding hours,
a welcome
"pause that refreshes"
with ice-cold Coca-Cola
often puts things
into manageable order.



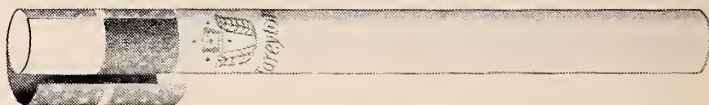
*Hungry
for flavor?
Tareyton's
got it!*



**Flavor you never thought you'd get
from any filter cigarette!**

If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good!* Quality tobaccos at their peak go *into* Tareyton. Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!

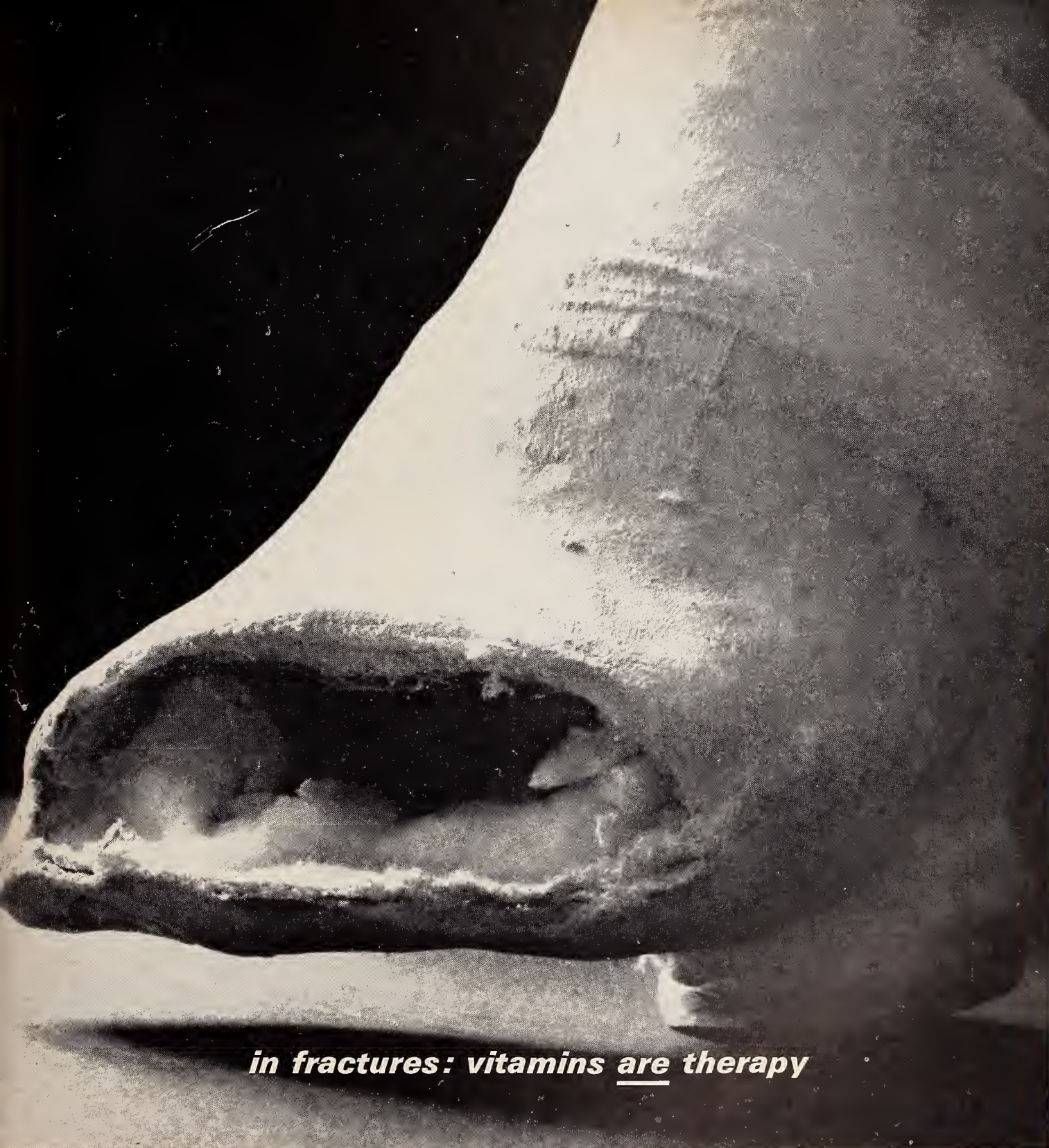
Dual Filter makes the difference



Product of The American Tobacco Company—

"Tobacco is our middle name" © A. T. Co.

DUAL FILTER *Tareyton*



in fractures: vitamins are therapy

Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:

Vitamin B ₁ (Thiamine Mononitrate)	10 mg.
Vitamin B ₂ (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B ₆ (Pyridoxine HCl)	2 mg.
Vitamin B ₁₂ Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.



STRESSCAPS[®]

Stress Formula Vitamins Lederle

*An Ethical Professional
Service for Your Patients
Founded 1936*



It's Spring Housecleaning Time!

About once or twice a year, doctors have housecleaning to do . . . cleaning out old past due accounts and either giving them up for loss or turning them over to a collection agency. Besides the loss of money, housecleaning such accounts takes up a lot of valuable time. You can end this unpleasant chore once and for all.

The solution: Suggest the Budget Plan for Health. The more you suggest it, the less past due accounts will accumulate because you turn your accounts into cash right away.

Today, more than ever before, monthly payments are popular . . . the preferred way to buy. Your patients pay for many things on monthly payments: the mortgage, the car, furniture, clothing and even food. Why not medical care? The Budget Plan for Health gets you your cash right away and provides a way for your patient to meet his financial obligation to you on convenient monthly payments at bank rate of interest. It builds goodwill for you. Your patients won't have to put off good health because they can't afford it.

End spring housecleaning by suggesting the Budget Plan for Health. Remember, Doctor, a paid patient is a satisfied patient and your best practice builder.

Medical & Dental Finance Bureau

First Street at Willetta	•	Phoenix	•	258-7755
31 North Tucson Boulevard	•	Tucson	•	MA 3-9421
456 North Country Club Drive	•	Mesa	•	WO 4-5668

Arizona Poisoning Control Information Center

VITAMIN A POISONING

Because vitamin preparations are being sold in this state by an increasing variety of outlets, the Arizona Poisoning Control Information Center is concerned with the increased possibility of overdosage and poisoning from certain vitamins. Although vitamins are generally considered as relatively innocuous substances, excessive ingestion of vitamin A and vitamin D can cause toxic manifestations and, possibly, death.

In 1954, Marie and See(1) first called attention to acute vitamin A poisoning in infants. The clinical characteristics described began within 12 hours after ingestion of approximately 300,000 units of vitamin A in each case. The symptoms included acute onset of hydrocephalus with intensive bulging of the fontanel, frequent vomiting, and agitation or insomnia without meningeal signs or other systemic complaints. Fortunately, these acute symptoms usually subside dramatically within 24 hours following cessation of vitamin A administration.

The chronic form of vitamin A poisoning or hypervitaminosis A, first described by Joseph(2) in 1944, is characterized by an insidious onset. Symptoms usually occur after 6 months or more after the start of excessive dosage of vitamin A. One of the most conspicuous signs of hypervitaminosis A is the development of subcutaneous swellings, usually in the forearm, sometimes in the shanks, feet, and elsewhere. The swellings are deep and attached to underlying structures, apparently the bones. The overlying skin is freely movable and is not edematous or discol-

ored. The lesions are tender and painful and cause hyperirritability and limitation of motion. Another prominent feature of hypervitaminosis A is hyperostoses. These bone lesions are multiple and can be detected under the subcutaneous swellings as well as in other sites. The bones which are most frequently involved are those unprotected by a large muscle mass, e.g., the ulnas, metatarsals, and clavicles; however, other bones may be affected. Other signs and symptoms which are less diagnostic include anorexia; pruritus; dry, scaly lips; bleeding fissures at the corners of the mouth; dry, excoriated skin; and sparse, coarse hair. Hepatomegaly may or may not be present.

There is always a striking elevation of the plasma vitamin A level in hypervitaminosis A (normal serum level is approximately 100 units per 100 ml). However, unless the prominent symptoms of chronic vitamin A poisoning, such as subcutaneous swelling and hyperostoses, are developed or unless the patient admits to chronic overdosage with vitamin A, a correct diagnosis may be difficult. For example, Stimson(3) reported such a case of hypervitaminosis A involving a 32-year-old former nurse. Over a period of about two years the patient was examined several times because of constitutional symptoms such as epigastric and subcostal discomfort, anorexia, malaise, easy fatigability, aching in the right sacroiliac and hip regions, urinary frequency and urgency, lethargy, and pain, tenderness in the right clavicle, painful

Topics of Current Medical Interest

lumps on the margin of the tongue, dry lips, and falling hair. During her early clinical visits she denied taking any medications including vitamins. But during a later visit she admitted taking vitamin A, originally prescribed for acne, for five years and that for the past two years she had taken daily doses of 100,000 units. Her serum vitamin A level at this time was 250 units per 100 ml. Within three days following cessation of vitamin A ingestion the patient noted marked improvement. Three months later she felt entirely well and her serum value of vitamin A had declined to a normal level, 104 units per 100 ml.

Another striking case(4) of chronic vitamin A intoxication involves a male infant who was given 8.4 ml of Tri-Vi-Sol daily, beginning on the 4th day of life, through misinterpretation of the pediatrician's instructions. The total vitamin A ingested each day was 70,000 units from the prepared formulas. At two months of age the infant was irritable and had a bulging anterior fontanel, but no other symptoms. Subdural and lumbar taps indicated no abnormality other than an increased intracranial pressure. During his stay in the hospital the patient improved, apparently because he was not given vitamins. Because x-rays of the skull suggested bone destruction or delayed ossification in the parietal advising against arteriographic and pneumoencephalographic examination for brain tumor may be shaken.

(Vitamin D poisoning will be discussed in a subsequent issue of this Bulletin)

STATISTICS OF 97 POISONING CASES IN ARIZONA DURING DECEMBER 1961

	Number	Percent
AGE:		
Under 5 years	72	74.2
6 to 15 years	1	1.0
16 to 30 years	10	10.3
31 to 45 years	5	5.2
Over 45 years	8	8.3
Not reported	1	1.0
NATURE OF INCIDENT:		
Accidental	66	68.0
Intentional	17	17.5
Not reported	14	14.5
TIME OF DAY:		
Between 6 a.m. and noon	30	30.9
Between noon and 6 p.m.	21	21.7
Between 6 p.m. and midnight	15	15.5
Between midnight and 6 a.m.	7	7.2
Not reported	24	24.7

OUTCOME:		
Recovery	43	44.3
Fatal	0	0.0
Not reported	54	55.7
CAUSATIVE AGENTS:		
Internal Medicines	Number	Percent
Aspirin	28	27.2
Other Analgesics	6	5.8
Barbiturates	5	4.9
Antihistamines	2	1.9
Laxatives	2	1.9
Cough Medicine	2	1.9
Tranquilizers	11	10.7
Others	10	9.7
Subtotal	66	64.0
External Medicines		
Liniment	2	1.9
Antiseptics	0	0.0
Others	1	1.0
Subtotal	3	2.9
Household Preparations		
Soaps, Detergents, etc.	0	0.0
Disinfectants	1	1.0
Bleach	7	6.8
Lye, corrosives, drain cleaners	3	2.9
Furniture and floor polish	1	1.0
Subtotal	12	11.7
Petroleum Distillates		
Kerosene	1	1.0
Gasoline	1	1.0
Others	0	0.0
Subtotal	2	2.0
Cosmetics	3	2.9
Pesticides		
Insecticides	1	1.0
Rodenticides	1	1.0
Others	0	0.0
Subtotal	2	2.0
Paints, Varnishes, Solvents, etc.	2	1.9
Plants	2	1.9
Miscellaneous	4	3.9
Unspecified	7	6.8
TOTAL	103*	100.0

STATISTICS OF 1168 POISONING CASES IN ARIZONA DURING 1961

	Number	Percent
AGE:		
Under 5 years	825	70.6
6 to 15 years	44	3.8
16 to 30 years	139	11.9
31 to 45 years	82	7.0
Over 45 years	56	4.8
Not reported	22	1.9
NATURE OF ACCIDENT:		
Accidental	912	78.1
Intentional	210	18.0
Were not reported	46	3.9
TIME OF DAY:		
Between 6 a.m. and noon	407	34.8
Between noon and 6 p.m.	321	27.5
Between 6 p.m. and midnight	189	16.2
Between midnight and 6 a.m.	63	5.4
Not reported	188	16.1
OUTCOME:		
Recovery	1001	85.7
Fatal	14	1.2
Not reported	153	13.1

CAUSATIVE AGENTS:

Internal Medicines	Number	Percent
Aspirin	299	24.9
Other Analgesics	37	3.1
Barbiturates	95	7.9
Antihistamines	27	2.3
Laxatives	15	1.3
Cough Medicine	15	1.3
Tranquilizers	89	7.4
Others	125	10.5
Subtotal	703	58.7
External Medicines		
Liniment	14	1.2
Antiseptics	12	1.0
Others	19	1.6
Subtotal	45	3.8
Household Preparations		
Soaps, Detergents, etc.	8	.7
Disinfectants	18	1.5
Bleach	65	5.4
Lye, corrosives, drain cleaners	25	2.1
Furniture and floor polish	13	1.1
Subtotal	129	10.8
Petroleum Distillates		
	Number	Percent
Kerosene	16	1.3
Gasoline	20	1.7
Others	21	1.8
Subtotal	57	4.8

Cosmetics	29	2.4
Pesticides		
Insecticides	46	3.8
Rodenticides	11	.9
Others	1	.1
Subtotal	58	4.8
Paints, Varnishes, Solvents, etc.	39	3.3
Plants	32	2.7
Miscellaneous	64	5.3
Unspecified	41	3.4
TOTAL	1197*	100.0

*Total number of causative agents exceeds the actual number of poisoning cases since in certain individual poisoning incidents more than one agent was involved.

REFERENCES

1. Marie, J. and See, G., Acute Hypervitaminosis of the Infant - a Clinical and Biological Study, Am. J. Dis. Child., 87:731, 1954.
2. Josephs, H. W., Hypervitaminosis A and Carotenemia, Am. J. Dis. Child., 67:33, 1944.
3. Stimson, W. H., Vitamin A Intoxication in Adults, New Eng. J. Med., 265:369, 1961.
4. Woodward, W. K., Miller, L. J., and Legant, O., Acute and Chronic Hypervitaminosis in a 4-Month-Old Infant, J. Pediat., 59:260, 1961.
5. Morrice, G., Jr., Havener, W. H., and Kapetansky, F., Vitamin A Intoxication as a Cause of Pseudomotor Cerebri, J.A.M.A., 173:1802, 1960.

Willis R. Brewer, Ph.D., Dean, College of Pharmacy, The University of Arizona, Tucson.
Albert L. Picchioni, Ph.D., Pharmacologist and Director, Arizona Poisoning Control Program, The University of Arizona, Tucson.
Lincoln Chin, Ph.D., Pharmacologist, The University of Arizona, Tucson.



At your store
or call

AM 4-0221
for
FREE
Home Delivery

No Salt Free Diet is
Complete Without...
Crystal Distal

STEAM DISTILLED WATER

Scientifically Processed
and Mineral Free

The purest water available.



CRYSTAL
Bottled
WATERS

Naturally Better for You

Constant care, supervision and companionship are an integral part of the therapy program at Camelback Hospital. Whether patients prefer restful hobbies such as TV viewing, reading, conversing in the modern, comfortable rooms, or enjoy more active out-of-doors recreation, highly-trained, registered nurses are always nearby.



Located in the heart of the beautiful Phoenix citrus area near picturesque Camelback Mountain, the hospital is dedicated exclusively to the treatment of psychiatric and psychosomatic disorders, including alcoholism.

APPROVED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS; and THE AMERICAN PSYCHIATRIC ASSOCIATION

Camelback Hospital

5055 North 34th Street
AMherst 4-4111
PHOENIX, ARIZONA

OTTO L. BENDHEIM, M.D., F.A.P.A., Medical Director

BUILDS *body tissue...*

BUILDS *sense of well-being
in the weak and debilitated*

WINSTROL[®]

BRAND OF STANOZOLOL

new physiotonic

NOW—the **highest** anabolic plus the **lowest** androgenic activity* with well-tolerated WINSTROL therapy

...for elderly patients with anorexia, asthenia and general debility—

MARKED IMPROVEMENT IN APPETITE, STRENGTH AND SENSE OF WELL-BEING

Fourteen patients, age 66 to 77, treated with Winstrol, usually in a dosage of 6 mg. daily, for various periods in order to correct underweight, weakness and chronic fatigue. Marked improvement occurred in appetite, sense of well-being and strength; almost all patients gained weight.

...for patients with osteoporosis and arthritis—

RELIEF OF PAIN, IMPROVEMENT IN MOBILITY

Twenty-one patients with arthritis treated with Winstrol for pain and limited mobility due to osteoporosis. With few exceptions, dosage was 6 mg. daily; duration of treatment varied from a few weeks to 6 months. In 8 patients relief of symptoms was excellent and in 6 moderate. Of the 7 persons in whom no relief was obtained, 5 had received treatment for less than one month and some had been given doses below 6 mg.

...for patients with malignant disease—

NOTABLE WEIGHT GAINS, INCREASED APPETITE AND SENSE OF WELL-BEING

Twenty-six patients, mostly women, weak, emaciated and seriously ill, were administered Winstrol in dosage of 6 mg. daily for periods extending up to 14 months (average 6.7 months). Notable weight gains occurred. Patients showed increased appetite, alertness and confidence, better appearance, increased mobility and tolerance to pain.

...for patients with chronic, non-malignant disorders—

IMPROVEMENT IN WEIGHT AND GENERAL ACTIVITY, INCREASED SENSE OF WELL-BEING

Eight patients with advanced tuberculosis, bronchopulmonary disease, nephritis and ulcerative colitis treated with 6 mg. of Winstrol daily for from 3 to 4 months. Gains in weight varied from 6 to 27 pounds with increased sense of well-being and improvement in general activity.

...for undernourished, underweight children and adolescents—

NOTABLE IMPROVEMENT IN APPETITE AND OUTLOOK, MARKED INCREASE IN WEIGHT AND HEIGHT

One hundred and twenty children, age 1 to 11 years, underweight and in poor health, were given Winstrol for several months. Majority received daily dosage of from 2 to 4 mg. In nearly all, appetite was improved. Over 70 per cent showed significant gains in weight of from 5 to 17 pounds.

DOSAGE: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

*animal data

WITH NEW
WINSTROL

patients look better... feel stronger—because they are stronger

Winthrop
LABORATORIES
New York 18, N. Y.





1 1/4 Grs. Ea.
FLAVORED

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

And like Bayer Aspirin, Bayer Aspirin for Children is quality controlled. No other maker submits aspirin to such thorough quality controls as does Bayer. This assures uniform excellence in both forms of Bayer Aspirin.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1 1/4 grain flavored tablets—Supplied in bottles of 50.

● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

New
GRIP-TIGHT CAP
for Children's
Greater Protection



THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.



Imagine your Convalescence in this Picture

Note the Executone Intercom to the Nurses Station; for your Radio or T.V. for your Instant Attention; Living Room Decor with pull down Reading Lamps and Modern Lounge Furniture; Private Phone; Bright but Soft Color combinations with cheerful window drapes.

**AROUND THE CLOCK REGISTERED NURSE SERVICE
ADMISSION BY REFERRAL OF YOUR DOCTOR OF MEDICINE**

COST? – A modest \$14.00 per day is the starting rate.

Phone or Write

WHITE ANGEL INN

277-6651

1845 East Thomas Road

Phoenix, Arizona





they made mine **Soyalac**

Fibre-free HYPOALLERGENIC formula

- ① Provides balanced nutritional values.
- ② An excellent formula for regular infant feeding.
- ③ An ideal food for milk allergies, eczema and problem feeding.

SOYALAC helps solve the feeding problem of prematures and infants requiring milk-free diet.

Strikingly similar to mother's milk in composition and ease of assimilation, babies thrive on SOYALAC.

Clinical data furnish evidence of SOYALAC'S value in promoting growth and development.

Protein of high biologic value is obtained from the soybean by an exclusive process.

Free Booklet and Samples

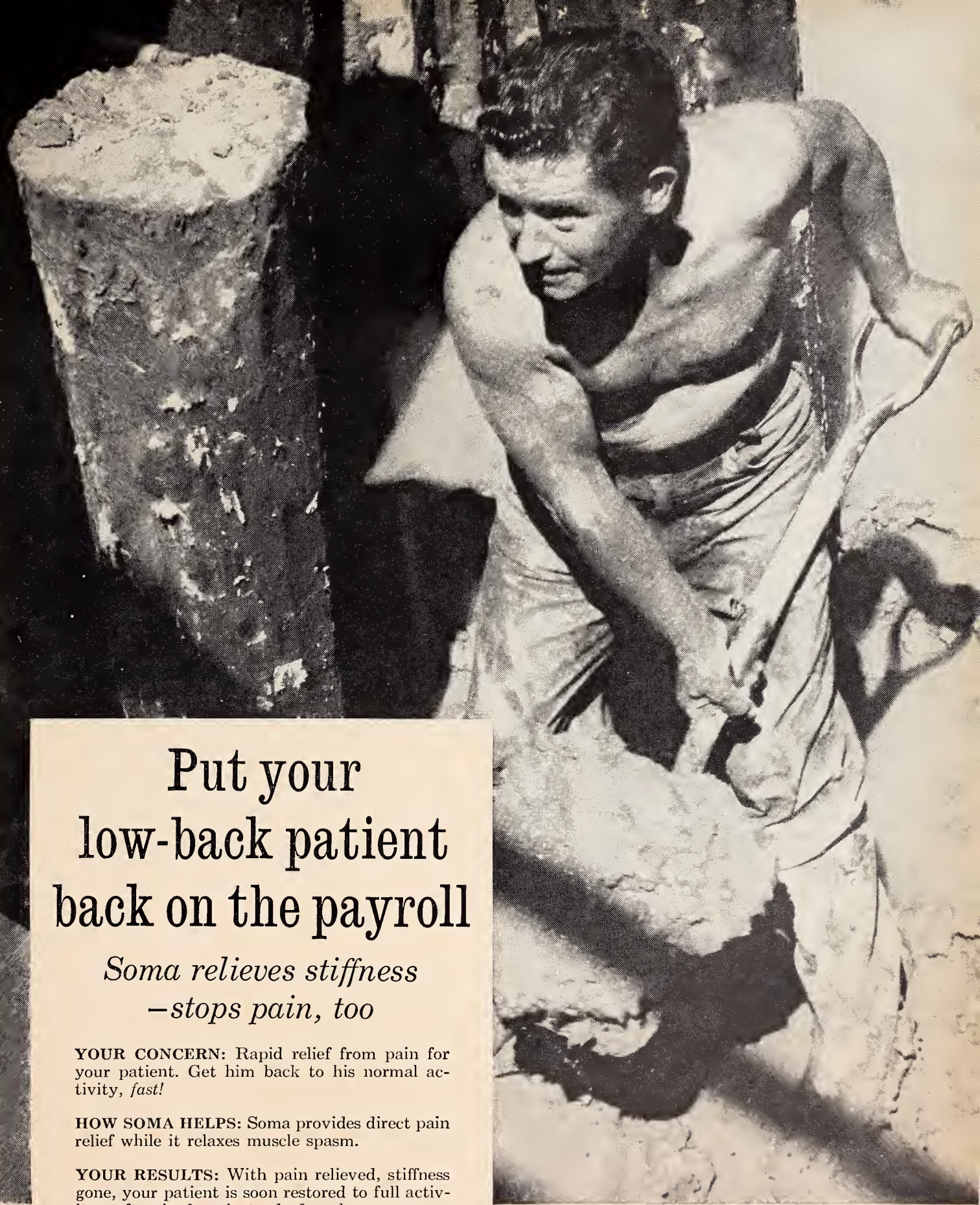
A request on your professional letterhead or prescription form will bring to you complete information, and a supply of samples.

Medical Products Division

LOMA LINDA FOOD COMPANY

ARLINGTON, CALIFORNIA • MT. VERNON, OHIO





Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. 172:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA[®]

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



a relaxed mind in a relaxed body

with

Trancopal®
Brand of chlormezanone

effective TRANQUILIZER ■ potent MUSCLE RELAXANT

When you prescribe Trancopal you can see how this "tranquilaxant" speedily helps the anxious patient. It quiets his psyche — and this quieting helps relax tense muscles. It eases muscle spasm — and this easing helps put the mind at rest.

DeNyse¹ notes that the effect of Trancopal as a quieting agent "... may play a part in the skeletal muscle-relaxing results obtained." Gruenberg² used Trancopal to treat patients with musculoskeletal disorders, and commented: "In addition to relieving spasm and pain, with subsequent improvement in movement and function, Trancopal reduced restlessness and irritability in a number of patients."

Trancopal has an unsurpassed record of safety. Very few side effects occur with Trancopal. You may see them in only about two out of a hundred patients, and they will almost always be mild.

Available: 200 mg. Caplets® (green colored, scored), bottles of 100
100 mg. Caplets (peach colored, scored), bottles of 100

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily;
children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. DeNyse, D. L. : M. Times 87:1512 (Nov.) 1959.
2. Gruenberg, F.: Current Therap. Res. 2:1 (Jan.) 1960.

Winthrop LABORATORIES New York 18, N.Y.

1649M

Good Samaritan Hospital

Postgraduate Seminar

A Postgraduate Seminar on Orthopedics, Otorhinolaryngology and Ophthalmology will be held Friday and Saturday, June 1 and 2, 1962, at Good Samaritan Hospital.

The Seminar is co-sponsored by Good Samaritan Hospital and the Maricopa County Chapter of American Academy of General Practice with approval for Category I Credit by the Arizona Academy of General Practice.

The enrollment charge is \$10.00 for both Friday and Saturday sessions, or \$5.00 for one session. Checks should be made payable to Good Samaritan Hospital.

An outline of each presentation will be distributed to all physicians who attend these seminar meetings.

ORTHOPEDICS

Friday, June 1, 1962

Moderator — Alfred F. Miller, Jr., M.D.

Each presentation will be followed by a 15 minute question and answer period.

1:00-1:30 p.m. Registration

1:30 p.m. The Management of "The Painful Shoulder"
Herbert J. Louis, M.D.

2:15 p.m. Management of Acute Knee Injuries
Ray Fife, M.D.

3:00 p.m. Early Management of Acute Injury of the Hand
John H. Ricker, M.D.

3:45 p.m. Management of Common Injuries of the Elbow
Alfred F. Miller, Jr., M.D.

Future Medical Meetings and Postgraduate Education

OTORHINOLARYNGOLOGY

Saturday, June 2, 1962

Moderator — Jack E. Brooks, M.D.

Each presentation will be followed by a 10 minute question and answer period.

8:00 a.m. Office Management of Acute Ear, Nose, and Throat Problems
D. E. Brinkerhoff, M.D.

(Breakfast may be purchased at hospital cafeteria)

8:50 a.m. Expanding Indications for Tracheotomy with Newer
Techniques
Gene V. Williams, M.D.

9:20 a.m. Evaluating the Patient With Hearing Complaints and
Tympanoplasty
Max Wertz, M.D.

9:50 a.m. Newer Techniques in Restoration of Hearing
Jack E. Brooks, M.D.

OPHTHALMOLOGY

Moderator — W. L. Sage, Jr., M.D.

Each talk will be 15 minutes with 5 minute question and answer period.

10:20 a.m. Refractions
Jess S. Hull, M.D.

10:40 a.m. Congenital Anomalies of the Eye
Harry J. French, M.D.

11:00 a.m. Trauma
John S. Aiello, M.D.

11:20 a.m. Glaucoma
Theodore A. Rice, M.D.

11:40 a.m. Ophthalmoscopy
Robert F. Lorenzen, M.D.

12:00 Noon Differential Diagnosis of the Red Eye
W. L. Sage, Jr., M.D.

REGIONAL MEETINGS

Summer and Early Fall, 1962

May 29-June 2, 1962

Colorado University Medical School and
Colorado Heart Association 10th Annual
Western Cardiac Conference and American
College of Cardiology
Denver, Colorado

June 25-27, 1962

Colorado University School of Medicine
Fundamental Seminar
Denver, Colorado

June 27-30, 1962

Idaho State Medical Association
Sun Valley, Idaho

July 10-13, 1962

University of Colorado Medical School
Ophthalmology
Estes Park, Colorado

July 13-14, 1962

16th Annual Rocky Mountain Cancer
Conference
Denver, Colorado

July 19-21, 1962

University of Colorado
Dermatology
Denver, Colorado

July 30-August 3, 1962

University of Colorado
Otology
Estes Park, Colorado

August 6-10, 1962

University of Colorado Medical School
Pediatrics
Estes Park, Colorado

August 16-18, 1962

Rocky Mountain Radiological Society
Denver, Colorado

September 16-19, 1962

Colorado Medical Society Annual Session
Colorado Springs, Colorado

October 30-November 3, 1962

Nevada State Medical Association Annual
Meeting
Las Vegas, Nevada

paf

DOUCHE POWDER

Buffered to control a
normal vaginal pH.

P.A.F.'s low surface ten-
sion increases penetra-
tion into the vaginal
rugae and dissolution of
organisms including tri-
chomonas and fungus.

P.A.F.'s high surface activity liquifies viscus
mucus on vaginal mucosa, releasing accumu-
lated debris in the vaginal tract.

Non-irritating,
non-staining.

No offensive
after-odor.



G. M. Case Laboratories — San Diego, Calif.

THE PIMA COUNTY MEDICAL SOCIETY

Announces the relocation of the
THOMAS DAVIS CLINIC

at

Alvernon and Fifth Street

Surgery

N. K. Thomas, M.D.
I. M. Chesser, M.D.
R. E. Jackson, M.D.

Obstetrics and Gynecology

H. S. Rhu, M.D.
G. J. Hippert, M.D.
J. D. Trisler, M.D.

Otolaryngology

B. W. Saylor, M.D. Otto Gambacorta, M.D.

Internal Medicine

R. F. Oyler, M.D.
M. A. Carreras, M.D.
H. H. McFadyen, M.D.
A. W. Gaudielle, M.D.
J. H. Wineinger, M.D.
R. A. Jackson, M.D.

Pediatrics

J. H. Demlow, M.D.
P. E. Dew, M.D.
W. E. Ahrens, M.D.

Ophthalmology

Robert Blake, M.D.

Telephone 327-7311

Serving Arizona
Health Needs
Since 1908

Ryan-Evans
DRUG STORES

Phoenix - Tucson - Scottsdale - Maryvale

Glendale - Sunnyslope - Tempe - Globe

Casa Grande - Miami - Wickenburg

POST-EZE SYSTEMS ARE AVAILABLE FOR:

- ★ ACCOUNTS RECEIVABLE
- ★ ACCOUNTS PAYABLE— PURCHASES
- ★ ACCOUNTS PAYABLE — CASH DISBURSEMENT



Now, small- and medium-size offices
can effect the economies of mechanized
accounting *without buying machines or*
employing specialized operators.

POST-EZE simplified plans save
up to 66% of time, eliminate trans-
cription errors, and keep all records up-
to-date and in balance, because: —

ONE writing posts all records
ONE simple proof proves all records

To Learn How you will save up to 66%
(it only takes 10 minutes)

CALL FOR TRAINED REPRESENTATIVE

ALpine 4-6611
3111 N. 29th Avenue
PHOENIX, ARIZONA

MAin 2-2446
604 N. 4th Avenue
TUCSON, ARIZONA



PRINTING - LITHOGRAPHY - ROTARY



in 1948
unique therapeutic achievement

in 1962
universal therapeutic acceptance

Dramamine[®] in vertigo

brand of dimenhydrinate

world standard for control of vertigo, nausea and emesis associated with

- Motion Sickness ■ Postoperative States ■ Labyrinthitis ■ Hypertension ■ Radiation Sickness
- Ménière's Syndrome ■ Postfenestration Syndrome ■ Antibiotic Therapy ■ Migraine Headache
- Pregnancy ■ Narcotization ■ Electroshock Therapy

Tablets/Liquid/Ampuls (for I. M. or I. V. use)/Supposicones[®]

SEARLE

Research in the Service of Medicine

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR
CONDITIONING FOR YEAR ROUND COMFORT

The Franklin Hospital

Hospital License No. 71
Registered A.M.A.
Member A.H.A.

367 No. 21st Avenue
PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751

HOBBY HORSE RANCH SCHOOL

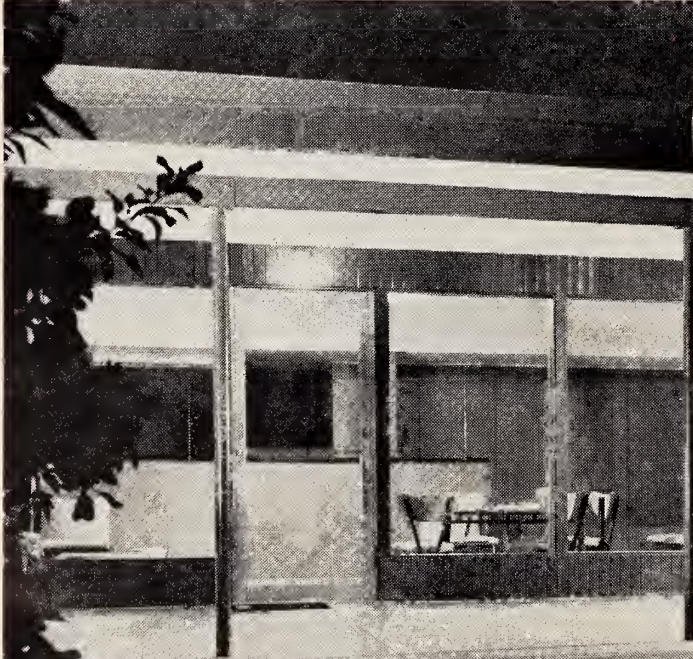
A School For Exceptional Children

The Hobby Horse Ranch School is both home and school for a small group of children. It welcomes the child who is mentally retarded and physically handicapped as well as the backward child who suffers no physical handicap.

The Hobby Horse Ranch School is a branch of Fairview School in Fishkill, New York which was established in 1936.

Directors: Blanche C. Lightowler, B.A.
Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.



**CAMELBACK
PROFESSIONAL
BUILDING**

ROBERT L. BEAL, M.D.
OTTO L. BENDHEIM, M.D.
PAUL M. BINDELGLAS, M.D.
HAL J. BREEN, M.D.
LEE S. COHN, M.D.
T. RICHARD GREGORY, M.D.
WILLIAM B. HAEUSSLER, M.D.
DERALD G. MAY, M.D.
HAROLD E. McNEELY, Ph.D.
ROBERT C. SHAPIRO, M.D.
WILLIS L. STRACHAN, M.D.
JOHN R. ZELL, M.D.

*general psychiatry and neurology
child psychiatry
psychoanalysis
clinical psychology
psychiatric social work
and family counselling*

**5051 NORTH 34th STREET
PHOENIX 18, ARIZONA
AM 4-4111**

BUTLER'S REST HOME

- Bed Patients and Chronics
- Television
- 24 Hour Nursing Care
- Excellent Food
- State Licensed

802 N. 7th St.

Phoenix, Arizona

Telephone AL 3-2592

HILLCREST MEDICAL CENTER

Established 1921

Third Avenue & Adams St.

Tucson, Arizona

Phone MA 3-7591

- General Medical
- Orthopedic
- Post-Operative
- Acute or Chronic
- Convalescent
- Geriatric
- Medical Doctor of Your Choice
- Non-Sectarian

Member American Hospital Association

Admittance by Doctors of Medicine Only

Katharine C. Schmid

Charles H. Schmid

TIME SAVED IS MONEY EARNED!

For the Professional Man TIME is MONEY! TIME is also keeping abreast of the newest information and techniques in your field — call it KNOWLEDGE. And TIME can mean more LEISURE.

If you cut your reading time in half, which of the above could you apply that EXTRA TIME to?

We GUARANTEE to DOUBLE your present reading speed — or there is no charge for our course! Our training instruments work!

The ACCELERATED READING School

34 E. Stetson Dr.

Scottsdale

945-8461

For all YOUR DRUG needs-

Phone MAC
ALpin 4-2606
or
ALpin 2-1573
In Arizona Since 1920

FAST FREE DELIVERY

MACALPINE'S

THE *Rexall* STORE • 2303 N. 7th ST.

YOUR PROFESSIONAL GROUP ACCIDENT AND SICKNESS INSURANCE POLICY

Approved and Recommended by
Your Insurance Committee and
Board of Directors



A Program Designed For
The Members Of

THE ARIZONA MEDICAL
ASSOCIATION, INC.

By The
NATIONAL CASUALTY COMPANY
OF DETROIT



For Complete Information
CONTACT

CHARLES A. DELEEuw

3424 N. Central Ave. — AMherst 6-2403

PIMA COUNTY REPRESENTATIVE

RONALD DEITRICH

136 North Stone Avenue MAin 3-0583

PHARMACY DIRECTORY

Your Prescription Store
DIERDORF PHARMACY
Phone BR 5-5212
2315 N. 24th St. Phoenix, Arizona
Milburn F. Dierdorf

In Scottsdale call
Lute's Scottsdale Pharmacy

For
PRESCRIPTIONS
WH 5-8420 — WH 5-8429
Next to the 1st National Bank

SRUTWA PHARMACIES, INC.

WH 5-3791
Scottsdale Medical Center
218 E. Stetson Drive
Scottsdale, Arizona

DISTRICT NO. 1

ARIZONA STATE NURSES ASS'N.

MRS. MARJORIE E. KASUN, R.N.

Registrar

Nurses' Professional Registry

703 Professional Bldg. — Phoenix — AL 4-4151

DOCTORS' CENTRAL DIRECTORY

Helen M. Barrasso, R.N., Director
For Emergencies or in Absence of Your Doctor

CALL EA 7-7471

At Your Service 24 Hours Daily

3029 E. 2nd St.

Tucson, Arizona

"Established 1932"

CLASSIFIED

"SITUATION WANTED"

OPTOMETRIST, experienced, non-licensed in Arizona, desires association with Medical Group having EENT section, or with an Ophthalmology group in Phoenix area, for dispensing and contact lens fitting. Complete information supplied upon request. Box 19-4-1, Arizona Medicine Journal.

GENERAL SURGEON

"General surgeon, 44 years of age, Diplomate of The American Board of Surgeons, Fellow of The American College of Surgeons; is interested in locating in Arizona. Have practiced in mid-west city for ten years and can furnish many references." Box 19-4, Arizona Medicine Journal.

OPHTHALMOLOGIST

Excellent opportunity for Ophthalmologist, Board Certified. Office space for lease, available immediately. Will remodel to suit. This space has been occupied by Ophthalmologists for the past 20 years. Contact the Physicians Building, 123 South Stone, Tucson, Arizona, or call MAin 3-9489.

GENERAL SURGEON

Board Certified General Surgeon; age 36 yrs.; married with family; Catholic religion desires to re-locate with group or other surgeon; currently available for interview. Write Box 19-5-2, Arizona Medicine.

GENERAL PRACTICE

General practitioner after 8 years solo practice interested in group or partnership practice. Prefer Arizona or New Mexico. 5-10,000 population. Write Box 19-5-1, Arizona Medicine.

LABORATORIES

THE DIAGNOSTIC LABORATORY

*Complete Medical Laboratory Service, X-Ray Diagnosis
Radiation Therapy, Radioactive Isotopes*



DEPARTMENT OF PATHOLOGY

MAURICE ROSENTHAL, M.D.
GEORGE SCHARF, M.D.
SEYMOUR B. SILVERMAN, M.D.
BLAND GIDDINGS, M.D.
GERALDINE PACE, M.D.

DEPARTMENT OF RADIOLOGY

MARCY L. SUSSMAN, M.D.
E. LAWRENCE GANTER, M.D.

Diplomates of the American Boards of PATHOLOGY and RADIOLOGY

1130 E. McDowell Rd.

Phoenix, Arizona

Phone AL 8-1601

Information, Price Lists and Mailing Containers upon request.

Medical Center X-Ray and Clinical Laboratory

1313 North 2nd Street
Phoenix, Arizona
Phone ALpine 8-3484

AND

Professional X-Ray and Clinical Laboratory

510 Professional Bldg.
Phoenix, Arizona
Phone ALpine 3-4105

DIAGNOSTIC X-RAY

X-RAY THERAPY

RADIUM THERAPY

CLINICAL PATHOLOGY

TISSUE PATHOLOGY

ELECTROCARDIOGRAPHY

BASAL METABOLISM

R. Lee Foster, M.D., F.A.C.R., F.A.C.P., Director

Martin L. List, M.D., Radiologist

Diplomates of American Board of Radiology

Lorel A. Stapley, M.D., Consultant Pathologist

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy
American College of Chest Physicians
15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
Fellow, American College of Allergists
Fellow, American Academy of Allergy
31 W. Camelback Road CR 7-3337
Phoenix, Arizona

Pediatric Allergy

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists

322 W. McDowell Rd. PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY

Diplomate of American Board of
Dermatology and Syphilology

Phone Alpine 3-5264

105 W. McDowell Road Phoenix, Arizona

WILLIAM SNYDER, M.D.

Diplomate of the American Board of Dermatology
Diseases of the Skin
Skin Cancer — Cutaneous Allergy
2021 N. Central Ave. — Alpine 3-8383
PHOENIX, ARIZONA

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S.

Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

MALIGNANT DISEASE

JAMES M. OVENS, M.D.

F.A.C.S. F.I.C.S.

Diplomate American Board of Surgery
Cancer and Tumor Surgery
X-ray and Radium Therapy

333 W. Thomas Road Phone 279-7301
Phoenix 13, Arizona

A. L. LINDBERG, M.D.

Neoplastic Diseases
Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona
Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D., F.A.C.S.* — A. L. Swenson, M.D.,
F.A.C.S.* — Ray Fife, M.D., F.A.C.S.* — Sidney L. Stovall, M.D.,
F.A.C.S.* — Thomas H. Taber, Jr., M.D., F.A.C.S.*
Robert A. Johnson, M.D.

*Diplomates of the American Board of Orthopedic Surgery.

2620 No. 3rd Street — Phoenix, Arizona — CR 7-6211

PHYSICIANS' DIRECTORY

PROCTOLOGY

WALLACE M. MEYER, M.D.

PROCTOLOGY

Park Central Medical Bldg.

Phone CR 4-5632

550 W. Thomas Road — 216 Patio B

Phoenix, Arizona

JAMES T. JENKINS, M.D.

Fellow American Proctologic Society

Fellow American College of Surgeons

Fellow International College of Surgeons

Practice Limited to Diseases of the Anus, Rectum
and Colon

2021 N. Central Ave.

Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

CARL BREITNER, M.D.

Psychiatry

AL 2-9108

909 E. Brill St.

Phoenix, Arizona

LEO RUBINOW, M.D.

PSYCHIATRY

AM 6-0630

224 E. Thomas Rd.

Phoenix, Arizona

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.

SPEECH PATHOLOGIST

Advanced Member

American Speech and Hearing Association

Diagnoses Speech and Swallowing Therapy

240 W. Osborn Rd. Phone AM 5-0071

Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P.

MARTIN L. LIST, M.D., Radiologist

Diplomates of American Board of Radiology

Diagnostic Roentgenology, X-Ray and Radium Therapy

510 Professional Bldg.

1313 N. Second St.

Phone ALpine 3-4105

Phone ALpine 8-3484

Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.

Diplomate of American Board of Radiology

E. LAWRENCE GANTER, M.D.

Diplomate of American Board of Radiology

DIAGNOSTIC RADIOLOGY

THERAPEUTIC RADIOLOGY

RADIOISOTOPES

1130 E. McDowell Rr.

Telephone ALpine 8-1601

Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.

123 South Stone Avenue

Tucson, Arizona

Office Phone MA 2-3371

Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.

GENERAL SURGERY

Certified by the American Board of Surgery

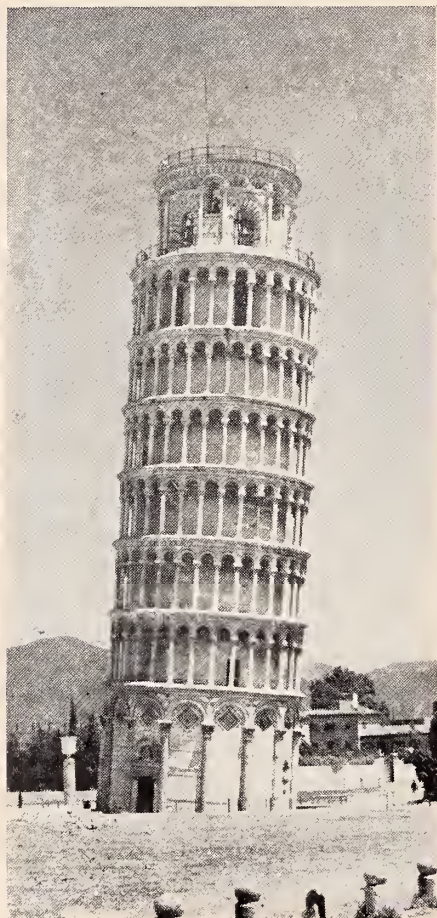
550 W. Thomas Road

Phone CRestwood 4-2081

Phoenix, Arizona

INDEX TO ADVERTISERS

American Tobacco Co.	49A	Loma Linda Food Co.	58A
Ames Co., Inc.	Inside Back Cover	Lorillard, P. & Co.	34A
Baker Laboratories, Inc.	40A	MacAlpine Drugs	67A
Brown Pharmaceutical	72A	Medical & Dental Finance Bureau	50A
Burroughs-Wellcome Co., Inc.	31A	National Casualty Co.	67A
Butler's Rest Home	67A	Nurses Directory	68A
Camelback Hospital	54A	Organon, Inc.	7A, 44A
Camelback Professional Building	66A	Page Land Co.	10A
Case, G. M. Laboratories, Inc.	64A	Parke-Davis & Co.	Inside Front Cover, 1A
Classified Ads	68A	Pfizer Laboratories	26A, 27A, 28A
Coca-Cola	49A	Pharmacy Directory	68A
Crystal Bottled Waters	53A	Robins, A. H. & Co., Inc.	39A
Doctors Directory	70A	Roche Laboratories	Back Cover
Endo Laboratories	42A	Ryan Evans Drugs	64A
Franklin Hospital	66A	Schering Corp.	23A
Glenbrook Laboratories	56A	Searle, G. D. & Co.	65A
Health-Mor, Inc.	25A, 122	Smith, Kline & French Labs.	33A
Hillcrest Medical Center	67A	Squibb, E. R. & Sons Co.	43A
Hobby Horse Ranch School	66A	Upjohn, The Co.	20A, 21A
Lantz and Co.	21A	Valley National Bank	28A
Lederle Laboratories	4A, 5A, 29A, 36A, 48A	Wallace Laboratories	9A, 59A
Leeming, Thos. & Co.	32A	White Angel Inn	57A
Lilly, Eli & Co.	Front Cover, 24A	Winthrop Laboratories	2A, 22A, 35A, 41A, 55A, 60A
Loftin's Business Forms	64A		



When treatment for
IMPOTENCE
 is indicated

ANDROID^{T.M.} tablets
 ANDROGEN-THYROID-COMBINATION

in two convenient dosage forms

ANDROID

Each yellow tablet contains:

Methyl Testosterone 2.5 mg.
 Thyroid Ext. (1/6 gr.) 10 mg.
 Glutamic Acid 50 mg.
 Thiamine HCl 10 mg.

ANDROID-H.P. (High Potency)

Each orange tablet contains:

Methyl Testosterone 5 mg.
 Thyroid Ext. (1/2 gr.) 30 mg.
 Glutamic Acid 50 mg.
 Thiamine HCl 10 mg.

INDICATIONS: Impotence in male.

AVERAGE DOSE: One tablet three times daily.

AVAILABLE: Bottles of 100 and 500 at your pharmacy.

CAUTION: Not to be used when testosterone is contra-indicated.
 Federal law prohibits dispensing without prescription.

1. Methyl-Testosterone-Thyroid in Treating Impotence, A. S. Titeff, General Practice, Vol. 25, No. 2, February, 1962, pp 6-8.
2. Thyroid-Androgen Relations, L. Hellman, et al., The Jrl. of Clin. Endocrinology and Metabolism, August 1959.

Write for samples and literature ...

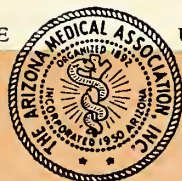
BROWN THE BROWN PHARMACEUTICAL COMPANY
 2500 West Sixth Street, Los Angeles 57, California

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE

UNITED STATES AND MEXICO



Volume 19

Number 6

June, 1962

U.C. MEDICAL CENTER LIBRARY

JUN. 25 1962

San Francisco, 22

sign of infection?



symbol of therapy!

Ilosone® is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

Lilly

232633

Ilosone works to speed recovery

Features:

Malignant Diseases of the Colon Page 130
by I. S. Ravin, M.D.

The Emphysema — Bronchitis Syndrome Page 136
by H. Corwin Hinshaw, M.D.

Survival in a Thermonuclear War Page 142
by Solomon Garb, M.D.

"crying solitary in lonely places"



DILANTIN®

(diphenylhydantoin, Parke-Davis)

permits a richer life for the epileptic

*"It has been more than twenty years since the introduction of diphenylhydantoin sodium (DILANTIN Sodium) as an anti-convulsant substance. This drug marks a milestone in the rational approach to the management of the epileptic."*¹ In grand mal and psychomotor seizures, DILANTIN is a drug of choice for a variety of reasons: • effective control of seizures¹⁻⁹ • oversedation is not a common problem² • possesses a wide margin of safety³ • low incidence of side effects³ • its use is often accompanied by improved memory, intellectual performance, and emotional stability.¹⁰ DILANTIN (diphenylhydantoin, Parke-Davis) is available in several forms, including DILANTIN Sodium Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANITIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100. for the petit mal triad: MILONTIN® Kapseals (phen-suximide, Parke-Davis) 0.5 Gm., bottles of 100 and 1,000; Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis) 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis) 0.25 Gm., bottles of 100.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

REFERENCES: (1) Roseman, E.: *Neurology* **11**:912, 1961. (2) Bray, P. F.: *Pediatrics* **23**:151, 1959. (3) Chao, D. H.; Druckman, R., & Kellaway, P.: *Convulsive Disorders of Children*, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.: *M. Clin. North America* **42**:317, 1958. (5) Livingston, S.: *The Diagnosis and Treatment of Convulsive Disorders in Children*, Springfield, Ill., Charles C Thomas, 1954, p. 190. (6) *Ibid.*: *Postgrad. Med.* **20**:584, 1956. (7) Merritt, H. H.: *Brit. M. J.* **1**:666, 1958. (8) Carter, C. H.: *Arch. Neurol. & Psychiat.* **79**:136, 1958. (9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: *Epileptic Seizures*, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (10) Goodman, L. S., & Gilman, A.: *The Pharmacological Basis of Therapeutics*, ed. 2, New York, The Macmillan Company, 1955, p. 187.

PARKE-DAVIS

92462 PARKE, DAVIS & COMPANY, Detroit 32, Michigan





***For peptic ulcer
gastric hyperacidity
and gastritis...***

***In year-long study on
peptic-ulcer patients***

New Creamalin® Antacid Tablets

***"...faster in onset
of action...and for
a longer period"****

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled..."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. ***How Supplied:*** Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:

Current Therap. Res. 3:29, Feb., 1961.

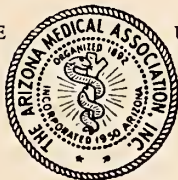
Winthrop
LABORATORIES
New York 18, N. Y.

Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

June, 1962



Vol. 19, No. 6

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

BOARD OF DIRECTORS MEETING — Minutes — March 18, 19629A

ORIGINAL ARTICLES

ULTRASTRUCTURAL DISEASES OF PLATELETS123

John W. Rebuck, M.D., Ph.D. and Raymond W. Monto, M.D.

MALIGNANT DISEASES OF THE COLON130

I. S. Ravdin, M.D.

THE EMPHYSEMA-BRONCHITIS SYNDROME136

H. Corwin Hinshaw, M.D.

ROENTGENOLOGY SECTION

NO CATHODE RAYS IN NOGALES140

John W. Kennedy, M.D.

SPECIAL FEATURE

SURVIVAL IN A THERMONUCLEAR WAR142

1. The Need for Action143

2. The Effects of Hydrogen Bombs148

3. Important Aspects of Nuclear Radiation150

Solomon Garb, M.D.

PRESIDENTS PAGE

PRESIDENTIAL ADDRESS — Clarence E. Yount, Jr., M.D.27A

EDITORIALS

THIRD PARTY MEDICINE — Arthur J. Present, M.D.35A

MENTAL FITNESS — William B. McGrath, M.D.36A

TOPICS OF CURRENT MEDICAL INTEREST

BASIC CRITERIA FOR BLOOD TRANSFUSION — JOINT BLOOD COUNCIL43A

KING-ANDERSON BILL44A

FUTURE MEDICAL MEETINGS AND POSTGRADUATE EDUCATION

REGIONAL MEETINGS — Summer and Early Fall, 196253A

DIRECTORY

OFFICERS AND COMMITTEES4A

SOCIEDAD MEDICA DE ESTADOS UNIDOS DE NORTE AMERICA Y MEXICO ...6A

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO6A

WOMAN'S AUXILIARY6A

INDEX TO ADVERTISERS57A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription \$5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.

Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.

Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Clarence E. Yount, Jr., M.D.Prescott
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D.President-elect
116 N. Tucson Blvd., Tucson, Arizona
W. Albert Brewer, M.D.Vice President
116 Professional Bldg., Phoenix, Arizona
Charles E. Henderson, M. D.Secretary
753 E. McDowell Rd., Phoenix, Arizona
Arthur V. Dudley, Jr., M.D.Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D.Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D.Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D.Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Arnold H. Dysterheft, M.D.Alterante Delegate to AMA
McNary Hospital, McNary, Arizona
Dermont W. Melick, M.D.Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D.Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D.Central District
710 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D.Central District
926 E. McDowell Rd., Phoenix, Arizona
Robert A. Price, M.D.Central District
3602 N. 15th Ave., Phoenix, Arizona
Noel G. Smith, M.D.Central District
3614 N. 15th Ave., Phoenix, Arizona
Ashton B. Taylor, M.D.Central District
461 W. Catalina Dr., Phoenix, Arizona
Leo L. Tuveson, M.D.Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D.Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D.Northwestern District
434 West Gurley Street, Prescott, Arizona
Thomas W. Jensen, M.D.Southeastern District
626 Sixth Ave., Safford, Arizona
Earl R. Baldwin, M.D.Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D.Southern District
1613 N. Tucson Blvd., Tucson, Arizona
Herman S. Rhu, M.D.Southern District
5th Street and Alvernon, Tucson, Arizona
Howard W. Finke, M.D.Southwestern District
Magma Hospital, Superior, Arizona

DIRECTOR AT LARGE

Leslie B. Smith, M.D.Past President
1130 E. McDowell Rd., Phoenix, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1962

APACHE: DeArmond Lindes, M.D., President, Box 272, Eagar;
Jerry T. Clifton, M.D., Secretary, General Delivery, Box
758, Showlow.
COCHISE: James S. Walsh, M.D., President, 631 Ninth St.,
Douglas; Harry C. Smith, M.D., Secretary, 910 Ninth St.,
Douglas.
COCONINO: John H. Caskey, M.D., President, 2725 E. Lakin
Drive, Flagstaff; J. Garland Wood, Jr., M.D., Secretary,
1215 N. Beaver Street, Flagstaff.
GILA: Theodore C. Harper, M.D., President, 703 Ash Street,
Globe; Thomas F. Moore, M.D., Secretary, Box 1207, Miami.
GRAHAM: Bruce N. Curtis, M.D., President, 618 Central Avenue,
Safford; Thomas W. Jensen, M.D., Secretary, 626 Sixth
Avenue, Safford.
GREENLEE: Hugh LaMaster, M.D., President, Box 1597, Clifton;
Howard W. Thomas, M.D., Secretary, Morenci Hospital,
Morenci.
MARICOPA: Jack E. Brooks, M.D., President, 2021 North Central
Avenue, Phoenix; Howard C. Lawrence, M.D., Secretary,
2021 N. Central Ave., Phoenix.
(Society Office — 2025 N. Central Ave., Phoenix)
MOHAVE: Walter Brazie, M.D., President, Masonic Building,
Kingman; John J. Standifer, M.D., Secretary, 412 E. Oak
St., Kingman.
NAVAJO: Leo L. Lewis, M.D., President, 101 S. Williamson St.,
Winslow; Theodore L. Lothman, M.D., Secretary, Box 397,
Holbrook.
PIMA: Delmer J. Heim, M.D., President, 116 N. Tucson Blvd.,
Tucson; Elliott E. Stearns, Jr., M.D., Secretary, 2442 E.
Elm St., Tucson.
(Society Office — 57 East Jackson St., Tucson)
PINAL: Glen H. Walker, M.D., President, 291 W. Wilson Ave.,
Coolidge; James H. Boyd, M.D., Secretary, 291 W. Wilson
Ave., Coolidge.
SANTA CRUZ: Zenas B. Noon, M.D., President, Gebler Bldg.,
Nogales; Charles S. Smith, M.D., Secretary, Gebler Building,
Nogales.
YAVAPAI: Albert O. Daniels, M.D., Box 1311, Prescott; William
R. Shepard, M.D., Secretary, 506 W. Gurley St., Prescott.
YUMA: Abe I. Podolsky, M.D., President, 1601 Fifth Ave.,
Yuma; Ellis V. Browning, M.D., Secretary, 407 16th Street,
Yuma.

COMMITTEES — 1961-62

NOTE: The President, President-elect and Secretary are ex-officio
members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE:
Paul B. Jarrett, M.D., Chairman (Phoenix); Walter Brazie
M.D. (Kingman); Frank A. Shellenbeiger, Jr., M.D. (Tucson);
Paul M. Singer, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Donald K.
Buffmire, M.D., Chairman (Phoenix); Preston T. Brown,
M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson);
Carl H. Gans, M.D. (Morenci); Roland V. Murphy, M.D.
(Tucson); Paul L. Singer, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Arthur V. Dud-
ley, Jr., M.D., Chairman (Tucson); Paul L. Singer, M.D.
(Phoenix); William B. Steen, M.D. (Tucson).

EXECUTIVE COMMITTEE: Leslie B. Smith, M.D., President.
Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson);
Paul L. Singer, M.D. (Phoenix); William B. Steen, M.D.
(Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Lindsay E. Beaton, M.D., Past-
President, Chairman (Tucson); Carlos C. Craig, M.D. (Phoe-
nix); Francis M. Findlay, M.D. (San Manuel); John F. Stan-
ley, M.D. (Yuma); Oscar W. Thoeny, M.D. (Phoenix); Hugh
C. Thompson, Jr., M.D. (Tucson); Florence B. Yount, M.D.
(Prescott).

HISTORY & OBITUARIES COMMITTEE: John W. Kennedy,
M.D., Chairman (Phoenix); Harold W. Kohl, M.D., (Tuc-
son); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podol-
sky, M.D. (Yuma); Howell S. Randolph, M.D. (Phoenix);
Paul L. Singer, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: John H. Ricker,
M.D., Chairman (Phoenix); John F. Currin, M.D. (Flagstaff);
Juan E. Fonseca, M.D. (Tucson); Oscar W. Friske, M.D.
(Ajo); Charles P. Neumann, M.D. (Tucson); Robert W.
Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Co-Chair-
man (Phoenix); MacDonald Wood, M.D., Co-Chairman
(Phoenix); Derrill B. Manley, M.D. (Phoenix); John S. Car-
lson, M.D. (Nogales); Ben P. Frissell, M.D. (Phoenix); Paul
B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D.
(Phoenix); James E. O'Hare, M.D. (Tucson); William B.
Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D.,
Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix);
Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D.
(Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer,
M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: W. Albert Brewer, M.D.,
Chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson);
W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D.
(Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: Wallace A. Reed, M.D., Chair-
man (Phoenix); Jack E. Brooks, M.D. (Phoenix); Robert
E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson);
Maurice Rosenthal, M.D. (Phoenix); George A. Spikes, M.D.
(Douglas).

PROCUREMENT & ASSIGNMENT COMMITTEE: Joseph M.
Greer, M.D., Chairman (Phoenix); Robert N. Class, M.D.
(Tucson); John F. Currin, M.D. (Flagstaff); Roland W. Hus-
song, M.D. (Phoenix); Robert M. Matts, M.D. (Yuma);
Joseph P. McNally, M.D. (Prescott).

PROFESSIONAL COMMITTEE: Robert B. Leonard, M.D., Chair-
man (Phoenix); James D. Alway, M.D. (Phoenix); Otto L.
Bendheim, M.D. (Phoenix); W. Albert Brewer, M.D. (Phoe-
nix); Orin J. Farness, M.D. (Tucson); Ray Fife, M.D. (Phoe-
nix); Richard B. Johns, M.D. (Phoenix); Earl J. Baker,
M.D. (Phoenix); Henry P. Limbacher, M.D. (Tucson); George
G. McKhann, M.D. (Phoenix); Herman S. Rhu, M.D. (Tuc-
son); Paul J. Slosser, M.D. (Yuma); Charles A. L. Stephens,
M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Ben B. Frissell, M.D.,
Chairman (Phoenix); Ernest A. Born, M.D. (Prescott); Clyde
W. Kurtz, M.D. (Phoenix); William G. Payne, M.D. (Tempe);
Harold J. Rowe, M.D. (Tucson); Delbert L. Secrist, M.D.
(Tucson); Hugh M. Smith, M.D. (Tucson); Noel G. Smith,
M.D. (Phoenix); Albert G. Wagner, M.D. (Phoenix); Roy
O. Young, M.D. (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roland F. Schoen, M.D.,
Chairman (Casa Grande); Robert H. Bullington, M.D. (Phoe-
nix); Howard W. Finke, M.D. (Superior); Charles H. Fin-
ney, M.D. (Phoenix); Fred L. Goff, M.D. (Douglas); Ralph
T. Irwin, M.D. (Yuma); Paul B. Jarrett, M.D. (Phoenix);
John F. Kahle, M.D. (Flagstaff); J. Edwin Keppel, M.D.
(Mesa); Clarence H. Kuhlman, M.D. (Tucson); W. R. Man-
ning, M.D. (Tucson); Clarence L. Robbins, M.D. (Tucson);
Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Editor-
in-Chief, Chairman (Tucson); R. Lee Foster, M.D. (Phoenix);
John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D.
(Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Richard O. Flynn,
M.D., Co-Chairman (Tempe); Clarence E. Yount, Jr., M.D.,
Co-Chairman (Prescott); James E. Brady, Jr., M.D. (Tucson);
Richard E. H. Duisberg, M.D. (Phoenix); Fred L. Goff,
M.D. (Douglas); Richard B. Johns, M.D. (Phoenix); Fred H.
Landeem, M.D. (Tucson); William H. Lyle, M.D. (Yuma);
Arthur N. Nelson, M.D. (Phoenix); Darwin W. Neubauer,
M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Edward
Sattenspiel, M.D. (Phoenix); Roland F. Schoen, M.D. (Casa
Grande); John R. Schwartzmann, M.D. (Tucson); William
B. Steen, M.D. (Tucson).

New (2nd) Edition!

Green and Richmond Pediatric Diagnosis

A remarkably useful book for every physician who sees children in his daily practice. This *New (2nd) Edition* gives you solid help in diagnosing the diseases of childhood. The authors start with presenting symptoms and carefully lead you back to the possible cause or condition that helped produce the signs of disturbance. Those indications of trouble commonly exhibited by children are discussed at length—*pain, cyanosis, bleeding, cough, etc.* Every part of the body, every system is carefully considered—telling you what to look for, how to look for it, and the significance of your findings. A detailed section on interviewing techniques stresses the establishment of rapport with the patient. You'll find a wealth of new information in this thorough revision. There are entirely new chapters on *Dysphagia, Delirium, Chest Pain, Irritability, Vertigo, Fainting and Headache*—reflecting the diagnostic consideration given to both physical and psychological causes.

By MORRIS GREEN, M.D., Associate Professor of Pediatrics, Indiana University School of Medicine, Director, Kiwanis Diagnostic and Out-Patient Center, James Whitcomb Riley Hospital for Children; and JULIUS B. RICHMOND, M.D., Professor and Chairman, Department of Pediatrics, State University of New York College of Medicine, Syracuse. About 512 pages, 6½" x 10", illustrated. About \$12.00.

New (2nd) Edition—Just Ready!

New - Just Ready!

Nealon - Fundamental Skills in Surgery

Here is a wealth of specific "how-to-do-it" information on essential procedures common to all major and minor surgery. Topics range from *how to remove sutures to how to perform the closed chest method of cardiac massage.* You'll find valuable help on: techniques of tying knots, wound dressing, anesthesia, types of suture materials and their use, general management of burns, instructions for operating room conduct, special pediatric surgery techniques, etc. Complications such as hemorrhage, shock, abdominal distension and wound disruption receive full attention. Dr. Nealon simply and clearly explains the general procedures which can be applied to handling injuries, infections and specific lesions of each body region. For example, he tells you how to repair flexor tendons by suture technique; how to insert an endotracheal tube; what to do for varicose ulcers; how to perform a sternal bone marrow biopsy; how to handle a breast abscess. Crystal-clear illustrations vividly picture each procedure. Every physician who is ever called upon to perform either major or minor surgery will welcome this handy guide.

By THOMAS F. NEALON, JR., M.D., Associate Professor of Surgery, Jefferson Medical College. About 295 pages, 6½" x 9¾", with about 289 illustrations. About \$8.50.

New—Just Ready!



Just Ready!

The 1961-1962 Mayo Clinic Volumes

No matter what your specialty or field of interest, these authoritative volumes have many articles of practical value to you. Here you will find the latest developments, treatments, surgical techniques and diagnostic methods from the Mayo Clinic's investigations over the past year.

This year, for the first time, all articles pertaining to surgery will appear in one volume and those on medicine in another—171 articles in all. These volumes are available separately or in a slip-cased set. Here is only a small sample of the type of coverage you'll find...

... in the "Medicine" Volume. Proctoscopic Clues in Diagnosis of Regional Enteritis—Evacuation of Gas Bubbles from Bladder—Diagnosis of Primary Hyperparathyroidism—Vascular Diseases of the Leg in the Aged—Neurodermatitis—Photosensitivity—Corneal Contact Lenses and Ocular Disease—Collapse After Tracheotomy.

... in the "Surgery" Volume. Superficial Carcinoma of the Stomach—Wound Dehiscence and Incisional Hernia in Gynecologic Cases—Open Intracardiac Repair for Transposition of the Great Vessels—Fractures About the Elbow in Children—Surgical Management of Bilateral Malignant Lesions of the Lung—Radiotherapy of Ewing's Sarcoma—Anesthesia for the Delivery of the Diabetic Patient—Psychologic Management of the Patient with Carcinoma.

Collected Papers of the Mayo Clinic and Mayo Foundation. Vol. 53. By the Staff of the Mayo Clinic, Rochester, Minnesota, and the Mayo Foundation, University of Minnesota. "Medicine" Volume, about 620 pages, 6" x 9", illustrated, about \$10.00. "Surgery" Volume, about 490 pages, 6" x 9", illustrated, about \$10.00. Slip-cased set, about \$20.00.

Just Ready!

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY

West Washington Square

Philadelphia 5

Please send when ready and bill me:

- ☐ Green & Richmond's Pediatric Diagnosis, about \$12.00
- ☐ Nealon's Fundamental Skills in Surgery, about \$8.50
- ☐ 1961-1962 Mayo Clinic Volumes
 - ☐ Medicine, about \$10.00
 - ☐ Surgery, about \$10.00
 - ☐ Slip-cased set, about \$20.00

Name.....

Address.....

.....SJC 6-62

**WOMAN'S AUXILIARY TO THE ARIZONA MEDICAL
ASSOCIATION – 1962-63 Board Members**

PresidentMrs. Frederick W. Knight (Mary)
618 Central Ave., Safford, Arizona

President-ElectMrs. Clare W. Johnson (Mary Ann)
318 West Lawrence Road, Phoenix 13, Arizona

1st Vice PresidentMrs. Max Costin
(Organization and Membership Chairman)
2648 E. Fourth Street, Tucson, Arizona

2nd Vice PresidentMrs. Thomas Rowley (Barbara)
(Program Chairman)
114 South Miller Street, Mesa, Arizona

TreasurerMrs. Joseph L. Bonnet (Lorene)
415 E. Ocotillo Rd., Phoenix 12, Arizona

Recording SecretaryMrs. Richard B. Johns (Ruth)
508 W. Rose Lane, Phoenix, Arizona

Corresponding SecretaryMrs. Thomas W. Jensen (Lois)
Box 352, Safford, Arizona

Director (1 year)Mrs. Ian M. Chesser (Lu)
414 N. Country Club Road, Tucson, Arizona

Director (1 year)Mrs. John F. Stanley (Marian)
1660 El Paseo Real, Yuma, Arizona

Director (2 years)Mrs. Seymour I. Shapiro (Arlene)
5433 East Eighth Street, Tucson, Arizona

STATE COMMITTEE CHAIRMEN – 1962-63

American Medical Education Fund..Mrs. C. Selby Mills (Vivian)
1844 E. Keim Dr., Phoenix 16, Arizona

BulletinMrs. Elvie B. Jolley (Mira)
Box 919, Bisbee, Arizona

By-LawsMrs. Jesse D. Hamer (Clarice)
1819 North 11th Avenue, Phoenix 7, Arizona

ChaplainMrs. Hermann S. Rhu, Jr. (Ruth)
2138 East Juanita, Tucson, Arizona

Community ServiceMrs. Robert S. Keller (Maren)
1229 Fifth Avenue, Safford, Arizona

ConventionTo be announced

Civil Defense'Mrs. Ellis Browning (Olive)
2200 16th Place, Yuma, Arizona

FinanceMrs. Hiram D. Cochran (Mary)
35 Camino Espanol, Tucson, Arizona

Health CareersMrs. Mayer Hyman (Betty)
4776 East Calle Chueca, Tucson, Arizona

HistorianMrs. Melvin W. Phillips (Jean)
1001 Norris Road, Prescott, Arizona

LegislationMrs. Shaw McDaniel (Eleanor)
114 East Tuckey Lane, Phoenix 12, Arizona

Mental HealthMrs. William E. Bishop (Marion)
211 S. 3rd Street, Globe, Arizona

NominatingMrs. Ian M. Chesser (Lu)
414 N. Country Club Road, Tucson, Arizona

ParliamentarianMrs. John Eisenheiss (Lucile)
99 West Northview, Phoenix, Arizona

Publications (Newsletter)Mrs. Hubert R. Estes (Mickie)
6911 Soyuluna Place, Tucson, Arizona

SafetyMrs. Robert G. Delph (Grace)
4 West 'D' Avenue, Glendale, Arizona

Student Nurse Loan Fund.Mrs. Howard M. Purcell, Jr. (Pauline)
100 E. Ocotillo Road, Phoenix, Arizona

COUNTY PRESIDENTS – 1962-63

Cocoino CountyMrs. J. Garland Wood, Jr. (Mel)
1215 North Beaver Street, Flagstaff, Arizona

Gila CountyMrs. Ellis L. Pollock (Elsie)
Box 1745, Miami, Arizona

Maricopa CountyMrs. Robert L. Gullen (Beverly)
5003 N. 22nd Street, Phoenix 16, Arizona

Pima CountyMrs. Juan E. Fonseca (Virginia)
Rt. 2, Box 741, Tucson, Arizona

Yavapai CountyMrs. Albert O. Daniels (Jean)
Box 1311, Prescott, Arizona

Yuma CountyMrs. Paul J. Slosser (Betty)
701 8th Avenue, Yuma, Arizona

**SOCIEDAD MEDICA DE ESTADOS UNIDAS DE
NORTEAMERICA Y MEXICO
MEDICAL SOCIETY OF THE UNITED STATES & MEXICO**

PresidentDr. Juan E. Fonseca
601 N. Wilmot, Tucson, Arizona

President-ElectDr. Eduardo Contreras Reyna
Marsella 125 Norte, Guadalajara, Jal., Mexico

Vice-PresidentDr. Robert E. Hastings
1014 N. Country Club Road, Tucson, Arizona

Secretary for the United StatesDr. Charles Kalil
200 East Monterey Way, Phoenix, Arizona

Secretary for MexicoDr. Fausto Zeron Medina
Avenida Alemania No. 535, Guadalajara, Jal., Mexico

Treasurer for the United StatesDr. Lucy Verneti
2021 N. Central Avenue, Phoenix, Arizona

Treasurer for MexicoDr. Eduardo Gonzalez Murguia
Juarez 673, Guadalajara, Jal., Mexico

Exec. Secy for United StatesMr. Byron Browder
3008 E. 6th St., Apt. D., Tucson, Arizona

Exec. Secretary for MexicoMr. Alfredo Patron
Mazatlan, Sinaloa, Mexico

**COORDINATING COMMITTEE
COMITE COORDINATOR**

Dr. Harry E. Thompson

Dr. Hector Gonzalez Guevara

Dr. Ignacio Chavez

Dr. W. R. Manning

A black and white photograph of a man in a suit and tie, smiling as he carves a large roasted pig. He is using a carving knife and a fork. The pig is on a platter, and there are some garnishes around it. The background is dark and out of focus.

WHEN HE EATS TOO HIGH ON THE HOG...

ENTOZYME[®] helps your gallbladder patient digest fat

The gallbladder patient who "can't resist" rich, succulent, greasy foods must often pay for his gastronomical indiscretions with the discomforts of fat-induced indigestion. However, these unpleasant aftereffects can frequently be relieved or prevented with Entozyme, a natural digestive supplement. Six tablets, the usual daily dose, will digest 60 gm. of fat or more. That's 50 to 90 per cent of an adult's normal daily intake. Bile salts stimulate the flow of bile and enhance the lipolytic activity both of Entozyme's Pancreatin and the patient's own lipase. Working together, Bile Salts and Pancreatin greatly aid the emulsification and transport of fat. Each enteric-coated Entozyme tablet contains Bile Salts (150 mg.) and Pancreatin, N.F. (300 mg.). Also 250 mg. of Pepsin, N.F.—enough to digest 8 gm. of protein.

A. H. Robins Company, Inc., Richmond 20, Virginia



in 1948
unique therapeutic achievement

in 1962
universal therapeutic acceptance

Dramamine® in vertigo

brand of dimenhydrinate

world standard for control of vertigo, nausea and emesis associated with

- Motion Sickness ■ Postoperative States ■ Labyrinthitis ■ Hypertension ■ Radiation Sickness
- Ménière's Syndrome ■ Postfenestration Syndrome ■ Antibiotic Therapy ■ Migraine Headache
- Pregnancy ■ Narcotization ■ Electroshock Therapy

Tablets/Liquid/Ampuls (for I. M. or I. V. use)/Supposicones®

SEARLE

Research in the Service of Medicine

Board of Directors

MINUTES — MARCH 18, 1962

Meeting of the Board of Directors of The Arizona Medical Association, Inc., held Sunday, March 18, 1962. William B. Steen, M.D., Vice President and Chairman, presiding.

ROLL CALL

PRESENT: Drs. Baldwin, Earl R., Beaton, Lindsay E., Brewer, W. Albert, Dudley, Arthur V., Jr., Treasurer, Dysterheft, Arnold H., Eisenbeiss, John A., Hamer, Jesse D., Jarrett, Paul B., McNally, Joseph P., O'Hare, James T., Schwartzmann, John R., Singer, Paul L., Secretary, Smith, Leslie B., President, Smith, Noel G., Steen, William B., Tuveson, Leo L., Yount, Clarence E., Jr., President-Elect.

Messrs. Boykin, Paul R., Assistant Executive Secretary; Carpenter, Robert, Executive Sec'y.

GUEST: Dr. Helme, William B.

EXCUSED: Drs. Barker, Clyde J., Jr., Moody, Deward G., O'Neil, James T., Neubauer, Darwin W., Reed, Wallace A.

MEDICINE AND SURGERY ACT — PROPOSED REVISION

The Chairman, Dr. Steen, called the meeting to order pointing out that this special meeting was called primarily to review the proposed Revision of the Medicine and Surgery Act, State of Arizona. This Board of Directors previously appointed an ad hoc Committee including Lindsay E. Beaton, M.D., as Chairman, Jesse D. Hamer, M.D. and William B. Helme, M.D., to review with the Board of Medical Examiners of the State of Arizona, the proposed revision. The Committee met with the Board of Medical Examiners recently and as the result of the deliberations, each member of this Board of Directors was furnished with a draft of the proposed Act. It is presumed that each member has reviewed the content in advance of this meeting. The Chairman turned the meeting over to Dr. Beaton to proceed with his report.

Dr. Beaton stated that considerable time had been devoted to the development of the pro-

posed Act, many meetings having been held by the Board of Medical Examiners relative thereto and that the content of the proposal, in its present form, as distributed to each member of this Board, has the full endorsement of both the Board of Medical Examiners and the ad hoc Committee of this Board of Directors. It is considered unnecessary to present the document by reading it page by page, line by line, as this was done at the previous meeting referred to. To conserve time, it was suggested that we go through the proposal page by page, only to the extent of giving each member of the Board of Directors opportunity to ask any questions regarding any specific section or provision and effort will be made to answer all such questions. This was agreed upon.

It was regularly moved and carried that this Board of Directors accept the entire report and proposed Medicine and Surgery Act for the State of Arizona submitted, as amended.

Dr. Beaton expressed the view supported by the Board of Directors that with the amendments agreed upon this morning, the next step will be to refer the proposed measure to counsel for preparation of a bill to be introduced during the first regular session of the 26th Legislature to convene in January, 1963. Unquestionably there will be need for possible simplification of the language and elimination of any conflicts between sections. Much time has been expended in the development of this proposed measure on the part of the Board of Medical Examiners and now that medical policy has been determined upon and disposed of and it being the firm belief that this revision is in the best interest of the people and, incidentally, the medical profession, it is anticipated that an all-out effort will be made to achieve its enactment. The Board of Medical Examiners has offered and, of course, will make available the services of its counsel, Mr. Charles T. Stevens, Special Assistant Attorney General, to cooperate and work with Mr. Jacobson.

Arizona Medical Association Reports

ADJOURNMENT

It was then regularly moved and carried that this special meeting of the Board of Directors be adjourned at 2:30 P.M., the said Board of Directors to immediately reconvene in regular session.

Regular meeting of the Board of Directors of The Arizona Medical Association, Inc., held Sunday, March 18, 1962, William B. Steen, M.D., Vice President and Chairman, presiding.

MEDICAL ECONOMICS COMMITTEE

Medicare Contract — Release

Presented by the United States of America (the Government) for consideration and execution by this Association (the Society) and the Arizona Blue Shield Medical Service (the Fiscal Administrator), associate with Medicare Contract No. DA-49-007-MD-806, covering the period December 7, 1956 to February 28, 1961, were the following: (1) Three Party Release Form — Contractor's Release, including Cumulative Claim and Reconciliation Statement, setting forth net amount claimed and net amount paid totaling \$2,089,926.12; and (2) Three Party Assignment Form — Contractors' Assignment of Refunds, Rebates, Credits, and Other Amounts.

The Fiscal Administrator is satisfied with the accounting and has executed these documents.

Counsel for the Association has reviewed the three documents stating:

"With respect to the Release form, it is in the usual form and style of such documents, and if you have no further claims against the Government that you know of and have had a reasonable time in which to discover any, they are entitled to your signature. In the event, however, you do have any claims or have not had a reasonable time within which to decide the same (or in the event you are not obligated under your Basic Medicare Contract to sign this kind of a document), you would have a right to delay the execution thereof, or perhaps permanently avoid signing the same.

"Sometimes release forms are mutual. In other words, it might be in order to suggest to the Government that both the Fiscal Administrator and the Society are entitled to a release by the Government from any claims which the Government may have against them or either of them. There is no law that

requires this. It is a matter of negotiation and agreement between the parties. In the last analysis, it is usually determined by "bargaining strength." In other words which party is in the "driver's seat."

"With respect to the Assignment of Refunds and Rebates, and assuming that the contract requires that the Society and the Fiscal Administrator return these to the United States of America and also cooperate in collecting the same, the document is in good order.

"Finally, with respect to the Reconciliation Statement, it is either mathematically correct, or it is not. In the event it is mathematically correct, they are entitled to your signature."

It was regularly moved and carried that action be deferred until after the meeting of the House of Delegates, at which time there will be appropriate action through the Committee; place in the Personal Reporter and notify the individual county societies.

Medicare Contract — New

Submitted by the United States of America (the Government) through the Office for Dependents' Medicare Care for consideration and execution by this Association (the Society) and the Arizona Blue Shield Medical Service (the Fiscal Administrator), is a new Medicare Contract numbered DA-49-192-MD-64, for the period March 1, 1962 to February 28, 1963. The Schedule of Allowances is the same as in the contract just expired. Attention is invited to paragraph 6 of Article 10 of the Schedule of the Contract. Subparagraph (1) contains the limitation of \$2.75 per claim. Subparagraph (2) contains a provision which will protect the Fiscal Administrator in the event the volume of claims falls below 3,000. This was insisted upon by the Association and Fiscal Administrator and is acceptable to the latter.

The Fiscal Administrator reports they have carefully reviewed this new Medicare Contract and find the changes acceptable to it. It stands ready to execute the new contract.

The Executive Secretary likewise has carefully reviewed the new contract and compared it with the one recently expired. Changes noted were in keeping with previously executed supplemental agreements and claims rate insisted upon by the Association and Fiscal Administrator.

Arizona Medical Association Reports

tor. The Fiscal Administrator is responsible, of course, for review of the administrative detail contained therein and the Schedule of Allowances which it has reported upon and accepted. Nothing major being noted, the contract has not been referred to counsel for review.

It was regularly moved and carried that the new Medicare Contract, No. DA-49-192-MD-64 for the period covered, be executed on the part of the Association.

BENEVOLENT AND LOAN FUND COMMITTEE — RESOLUTION

The Benevolent and Loan Fund Committee reported on its review of Resolution No. 9, adopted by the House of Delegates, April 28, 1961, dealing with medical student loans and a physicians' voluntary retirement plan. Its Annual Report contains its recommendation that no action be taken by the Association in this regard at this time.

A resolution was presented recommending its introduction in the House, April next, authorizing that fifty per cent of the AMEF contributions be retained by the Association for the specific use of the Student Loan Fund for a period of five years; further, that the Committee continue the study of financial assistance to Arizona medical students, utilizing whatever means may be available, particularly through AMA, for the retention of this valuable and worthy program.

It was determined that Dr. Dudley, Jr., Treasurer, and as such, a member of the House of Delegates, introduce this resolution.

SCIENTIFIC ASSEMBLY COMMITTEE

The Board of Directors is requested by the Scientific Assembly Committee to determine whether or not permission should be granted the American Association of Physicians and Surgeons for space to present its literature during the forthcoming Annual Meeting.

It was determined this is a Scientific Assembly Committee responsibility and should be handled by it.

PROFESSIONAL COMMITTEE

It was regularly moved and carried that W. Albert Brewer, M.D., Chairman of the Subcommittee on Cancer of the Professional Committee, be officially designated representative of this Association to attend the Eighth International Cancer Congress in Moscow, July 22 to 28, 1962, at his own expense.

ALTERNATE DELEGATE TO AMA

Dermont W. Melick, M.D., who saw fit to resign as Alternate Delegate to the American Medical Association, which was previously accepted by the Board of Directors, by letter dated March 8, 1962, petitioned the Board to reconsider its action, submitting a formal request for withdrawal of his previous resignation.

It was regularly moved and carried that the Board of Directors rescind its previous action in accepting his (Dermont W. Melick's, M.D.) resignation and restore his original status as Alternate Delegate to the American Medical Association.

MEETING ADJOURNED.

Paul L. Singer, M.D.
Secretary



DIAGNOSIS: Abscess with cellulitis

THERAPEUTIC NEED: Suppression of the causative organisms and drainage.

ANTIBIOTIC:


DECLOMYCIN[®]
Demethylchlortetracycline Lederle

because it has been proved clinically effective in abscess and other soft-tissue infections.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York





BUILDS *body tissue...*

BUILDS *sense of well-being
in the weak and debilitated*

WINSTROL®

BRAND OF STANZOLOL

new physiotonic

NOW—the **highest** anabolic plus the **lowest** androgenic activity* with well-tolerated WINSTROL therapy

...for elderly patients with anorexia, asthenia and general debility—

MARKED IMPROVEMENT IN APPETITE, STRENGTH AND SENSE OF WELL-BEING

Fourteen patients, age 66 to 77, treated with Winstrol, usually in a dosage of 6 mg. daily, for various periods in order to correct underweight, weakness and chronic fatigue. Marked improvement occurred in appetite, sense of well-being and strength; almost all patients gained weight.

...for patients with osteoporosis and arthritis—

RELIEF OF PAIN, IMPROVEMENT IN MOBILITY

Twenty-one patients with arthritis treated with Winstrol for pain and limited mobility due to osteoporosis. With few exceptions, dosage was 6 mg. daily; duration of treatment varied from a few weeks to 6 months. In 8 patients relief of symptoms was excellent and in 6 moderate. Of the 7 persons in whom no relief was obtained, 5 had received treatment for less than one month and some had been given doses below 6 mg.

...for patients with malignant disease—

NOTABLE WEIGHT GAINS, INCREASED APPETITE AND SENSE OF WELL-BEING

Twenty-six patients, mostly women, weak, emaciated and seriously ill, were administered Winstrol in dosage of 6 mg. daily for periods extending up to 14 months (average 6.7 months). Notable weight gains occurred. Patients showed increased appetite, alertness and confidence, better appearance, increased mobility and tolerance to pain.

...for patients with chronic, non-malignant disorders—

IMPROVEMENT IN WEIGHT AND GENERAL ACTIVITY, INCREASED SENSE OF WELL-BEING

Eight patients with advanced tuberculosis, bronchopulmonary disease, nephritis and ulcerative colitis treated with 6 mg. of Winstrol daily for from 3 to 4 months. Gains in weight varied from 6 to 27 pounds with increased sense of well-being and improvement in general activity.

...for undernourished, underweight children and adolescents—

NOTABLE IMPROVEMENT IN APPETITE AND OUTLOOK, MARKED INCREASE IN WEIGHT AND HEIGHT

One hundred and twenty children, age 1 to 11 years, underweight and in poor health, were given Winstrol for several months. Majority received daily dosage of from 2 to 4 mg. In nearly all, appetite was improved. Over 70 per cent showed significant gains in weight of from 5 to 17 pounds.

DOSAGE: Usual adult dose, one 2 mg. tablet t.i.d. just before or with meals; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available in bottles of 100 tablets.

Complete bibliography and literature available on request. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

*animal data



**WITH NEW
WINSTROL**

patients look better...feel stronger—because they are stronger

Winthrop LABORATORIES
New York 18, N. Y.

blood pressure approaches normal more readily, more safely....simply with **Salutensin**[®] (hydroflumethiazide, reserpine, protoveratrine A—antihypertensive formulation)

Early, efficient reduction of blood pressure. Only Salutensin combines the advantages of protoveratrine A ("the most physiologic, hemodynamic reversal of hypertension"¹) with the basic benefits of thiazide-rauwolfia therapy. The potentiating/additive effects of these agents²⁻⁸ provide increased antihypertensive control at dosage levels which reduce the incidence and severity of unwanted effects.

Salutensin combines Saluron[®] (hydroflumethiazide), a more effective 'dry weight' diuretic which produces up to 60% greater excretion of sodium than does chlorothiazide⁹; reserpine, to block excessive pressor responses and relieve anxiety; and protoveratrine A, which relieves arteriolar constriction and reduces peripheral resistance through its action on the blood pressure reflex receptors in the carotid sinus.

Added advantages for long-term or difficult patients. Salutensin will reduce blood pressure (both systolic and diastolic) to normal or near-normal levels, and maintain it there, in the great majority of cases. Patients on thiazide-rauwolfia therapy often experience further improvement when transferred to Salutensin. Further, therapy with Salutensin is both economical and convenient.

Each Salutensin tablet contains: 50 mg. Saluron[®] (hydroflumethiazide), 0.125 mg. reserpine, and 0.2 mg. protoveratrine A. See Official Package Circular for complete information on dosage, side effects and precautions.

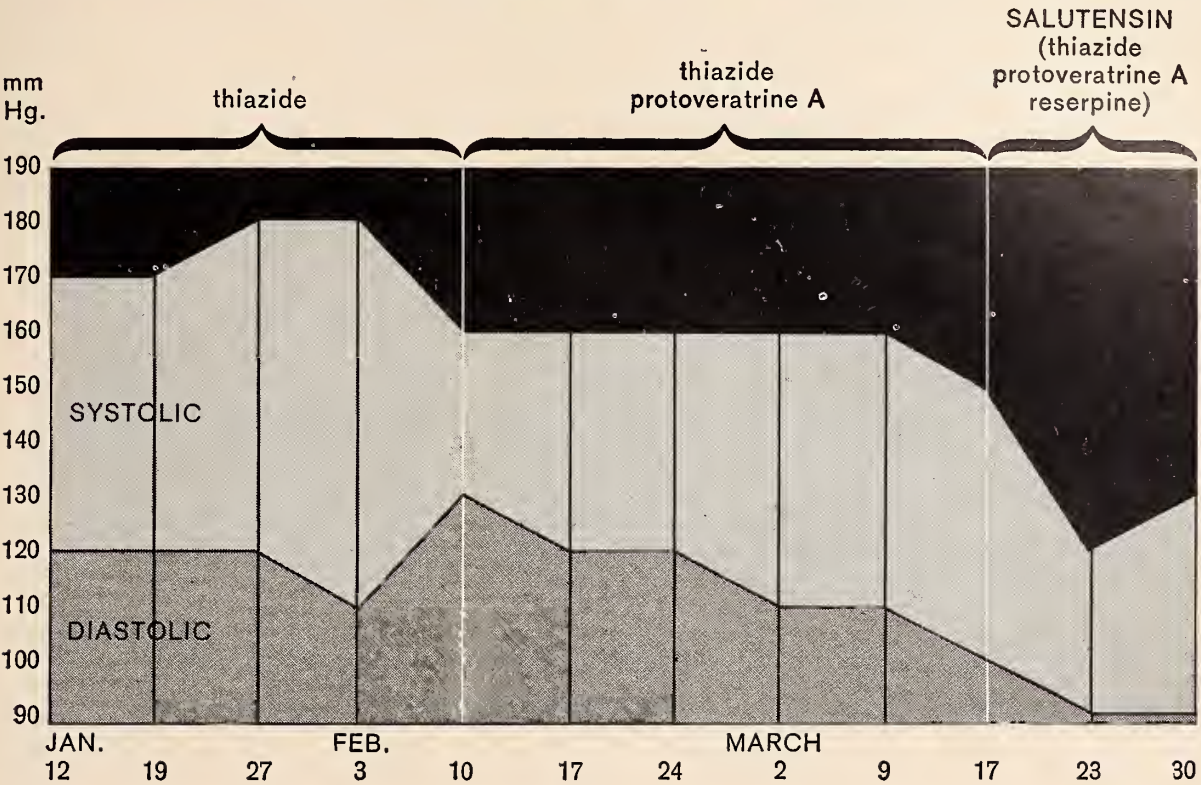
Supplied: Bottles of 60 scored tablets.

References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., *et al.*: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., *et al.*: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

all the antihypertensive benefits of thiazide-rauwolfia therapy plus the specific, physiologic vasodilation of protoveratrine A

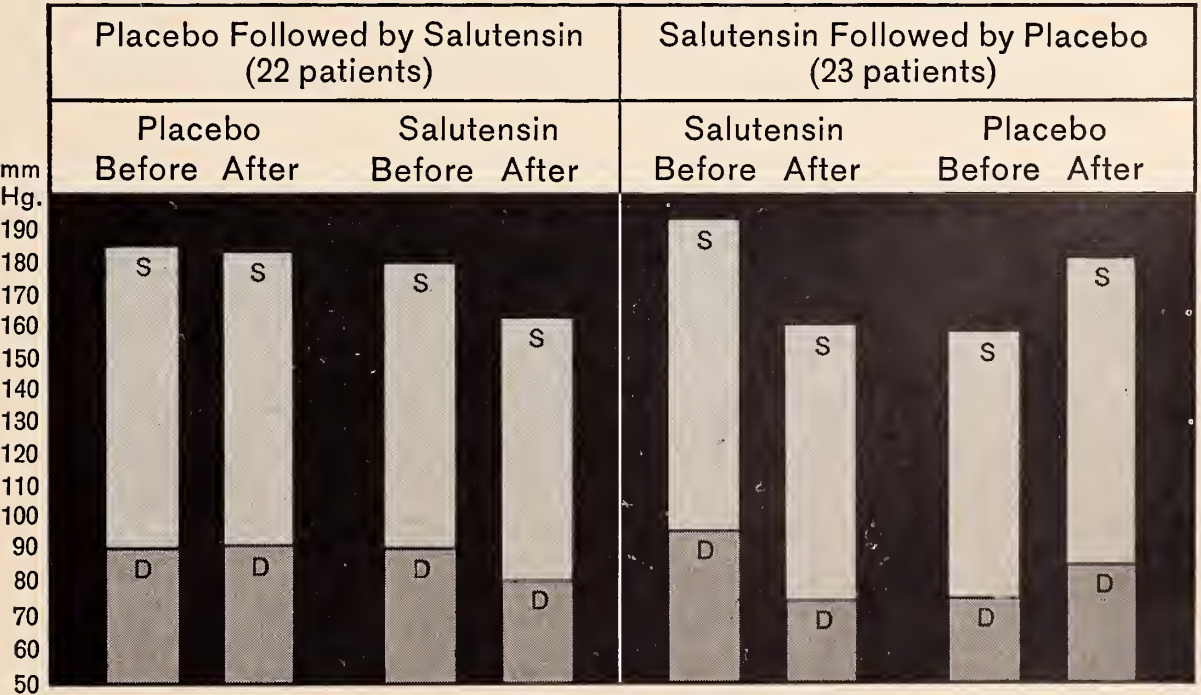
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures—Systolic (S) and Diastolic (D)



In this "double blind" crossover study of 45 patients, the mean systolic and diastolic blood pressures were essentially unchanged or rose during placebo administration, and decreased markedly during the 25 days of Salutensin therapy. (Smith, C. W.: Report to Department of Clinical Investigation, Bristol Laboratories.)

BRISTOL LABORATORIES/Div. of Bristol-Myers Co., Syracuse, N.Y.





Imagine your Convalescence in this Picture

Note the Executone Intercom to the Nurses Station; for your Radio or T.V. for your Instant Attention; Living Room Decor with pull down Reading Lamps and Modern Lounge Furniture; Private Phone; Bright but Soft Color combinations with cheerful window drapes.

**AROUND THE CLOCK REGISTERED NURSE SERVICE
ADMISSION BY REFERRAL OF YOUR DOCTOR OF MEDICINE**

COST? – A modest \$14.00 per day is the starting rate.

Phone or Write

WHITE ANGEL INN

277-6651

1845 East Thomas Road

Phoenix, Arizona





makes glaucoma screening easier

"Since approximately 3 to 4 per cent of those patients in the forty-and-over age group may have glaucoma, the value of a routine measurement of the intraocular pressure is self-evident."¹

Screening tonometry for early detection of glaucoma can be incorporated conveniently into any physical examination procedure when the eye is anesthetized with OPTHAININE, the topical anesthetic with the shortest onset time. Instillation of 1 or 2 drops produces adequate anesthesia in approximately 20 seconds or less.^{2,3} OPTHAININE anesthesia is completely safe, because the drug does not damage the corneal epithelium and seems to be less irritating than other agents.^{4,5,6} The duration of anesthesia (about 15 minutes) is adequate for removal of foreign bodies and similar operative procedures. In fact, the properties of OPTHAININE make it ideal for any ophthalmologic procedure requiring topical anesthesia.

SUPPLY: Ophthaine is supplied as a sterile 0.5% solution in plastic drop-dispensing bottles containing 15 cubic centimeters. REFERENCES: 1. Gordon, D.M.: *New York J. Med.* 61:3649 (Nov. 1) 1961. 2. McIntyre, A.R.; Lee, L.W.; Rasmussen, J. A.; Kuppinger, J.C., and Sievers, R.F.: *Nebraska State M.J.* 35:100 (Apr.) 1950. 3. Boozan, C.W., and Cohen, I.J.: *Am. J. Ophthal.* 36:1619 (Nov.) 1953. 4. Jervey, J.W.: *South M.J.* 48:770 (July) 1955. 5. Leopold, I.H.: in Modell, W.: *Drugs of Choice*, 1960-1961, St. Louis, C.V. Mosby Co., 1960, page 699. 6. Linn, J.G., Jr., and Vey, E.K.: *Am. J. Ophthal.* 40:697 (Nov.) 1955

SQUIBB



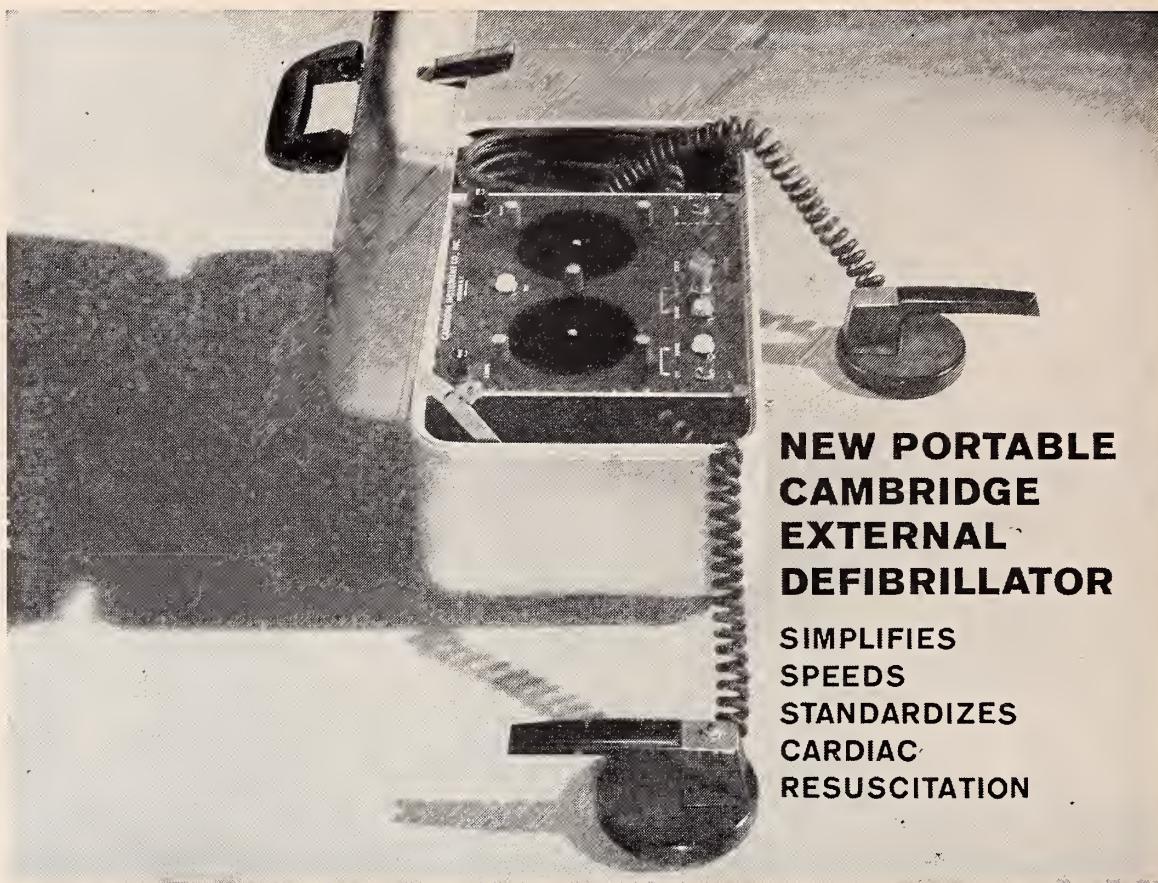
Squibb Quality—the Priceless Ingredient

SQUIBB DIVISION lin

OPHTHAININE

Ophthaine® is a Squibb trademark

SQUIBB PROPARACAINE HYDROCHLORIDE



NEW PORTABLE CAMBRIDGE EXTERNAL DEFIBRILLATOR

SIMPLIFIES
SPEEDS
STANDARDIZES
CARDIAC
RESUSCITATION

The design of the Cambridge Defibrillator emphasizes reliability, convenience and speed of operation—since time and reliability are of utmost importance. Based on latest medical findings, the Cambridge Defibrillator represents an important development in cardiac resuscitation. Fully portable, it offers many new operational features.

The Cambridge Defibrillator is operated by *one* person. It *eliminates* voltage estimating by providing two fixed settings—one for an adult, the other for a child. An *automatic* timing device assures the correct duration of the shock. A thumb button positioned on the right electrode—where it can be used most naturally and effectively—assures absolute control.

Exclusive circuit tester gives positive assurance that the instrument is in “go” condition. A reset control removes any chance of an accidental second shock. The comfortable “grip” electrode handles are non-conductive and are positioned to enable quick and positive electrode contact with the patient.

No operating room, intensive care unit, or recovery room can now be considered complete without a Cambridge External Defibrillator.

Examine and test the Cambridge Defibrillator, Doctor, and see how simple, uncomplicated and uncluttered an effective Defibrillator can be . . . and inexpensive, too! A demonstration of this new, complete instrument will be gladly given—just phone your nearest representative.



EASILY PORTABLE—SELF CONTAINED UNIT. Weighs only 26 lbs. Even the smallest nurse can carry it. All components are contained within a sturdy, compact aluminum case—no accessories to forget or lose.

BUILT-IN THUMB CONTROL. Right under the doctor's thumb on the electrode handle—where he can press it naturally, firmly and at the right instant.



Send for Bulletin 480

CAMBRIDGE INSTRUMENT COMPANY, INC.

Graybar Bldg., 420 Lexington Ave., N.Y. 17, N.Y.

SOUTHWESTERN SURGICAL SUPPLY CO.

307 West Thomas Road

Phoenix, Arizona

Relieves Anxiety and Anxious Depression



The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

Clinically proven
in over 750
published studies

- 1 Acts dependably — without causing ataxia or altering sexual function
- 2 Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
- 3 Does not muddle the mind or affect normal behavior



when occupational allergies strike

Dimetane[®] Extentabs[®] CONTINUOUS 10-12 HOUR ACTION
parabromdylamine (brompheniramine) maleate 12 mg.

reliably relieve the symptoms...seldom affect alertness

Beauticians (and their customers) may develop allergies to henna, dyes and oils...housewives to dust and soap...farmers to pollens and molds. Most types of allergies — occupational, seasonal or occasional reactions to foods and drugs — respond to Dimetane. With Dimetane most patients become symptom free *and* stay

alert, and on the job, for Dimetane works...with a very low incidence of significant side effects. Also available in conventional tablets, 4 mg.; Elixir, 2 mg./5 cc.; Injectable, 10 mg./cc. or 100 mg./cc.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA
 MAKING TODAY'S MEDICINES WITH INTEGRITY...
 SEEKING TOMORROW'S WITH PERSISTENCE





Schering

“Griseofulvin appears to be the most effective drug available for the treatment of fungus infections of the nails....” Council on Drugs: J. A. M. A. 176:594 (May 20) 1961.

in four months, FULVICIN cleared T. rubrum infection of nails and palms

1 March 20, 1961—therapy with FULVICIN started.



2 April 19, 1961.



3 May 19, 1961.



CASE HISTORY AND PHOTOGRAPHS OF PATIENT, COURTESY OF NORMAN ORENTREICH, M. D., NEW YORK, N. Y.

When Mr. R. Y. was first seen, three fingernails on his left hand showed thickening, opacity and brittleness. The patient also had well-defined erythematous plaques on the palms. Cultures of *Trichophyton rubrum* were obtained from scrapings. The patient was placed on FULVICIN, 250 mg. q.i.d., and a 2% salicylic acid cream. After four months, both nail and palmar involvement had cleared completely and all therapy was discontinued. The patient's hands were free of ringworm when examined one month after completion of the course of therapy with FULVICIN.

SUPPLIED: FULVICIN Tablets (scored), 500 mg., bottles of 20 and 100; 250 mg., bottles of 30, 100 and 500.

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, SCHERING CORPORATION, BLOOMFIELD, NEW JERSEY. S-944

4 June 19, 1961—therapy with FULVICIN stopped.



5 July 19, 1961—four-week follow-up.

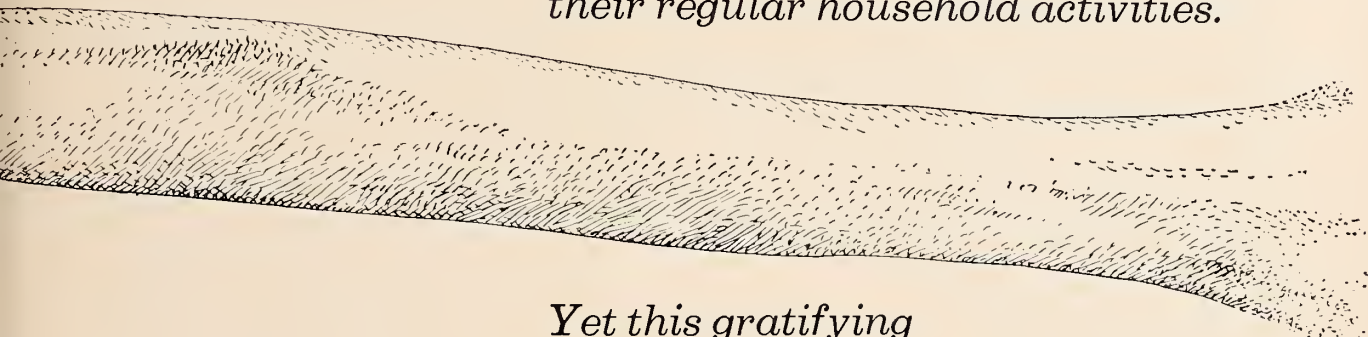


gratifying relief f



inful joints

With ARISTOCORT, patients with painful, arthritic joints obtain rapid reduction of pain and inflammation, as well as substantial improvement in joint mobility. Many patients who might otherwise be confined in a state of invalidism have been able —with ARISTOCORT—to continue their customary livelihoods or go about their regular household activities.



Yet this gratifying symptomatic relief may not be accompanied by severe hormonal collateral effects, such as sodium retention, edema, emotional disturbance, insomnia or voracious appetite—that may prevent patients from obtaining corticosteroid benefits.

unsurpassed for total patient benefits

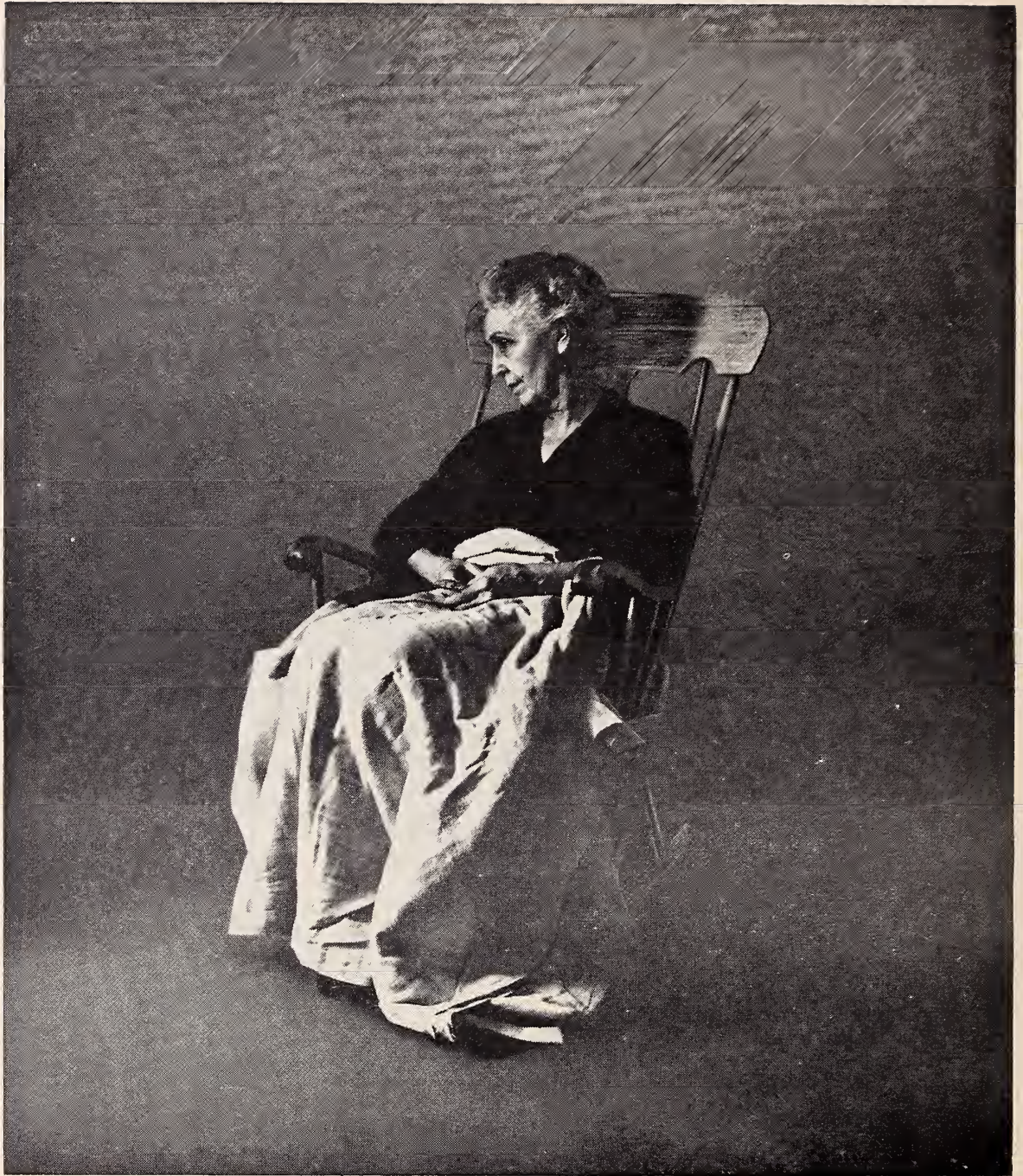
Aristocort[®]

Triamcinolone Lederle

SUPPLIED: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.



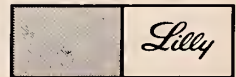
LEDERLE LABORATORIES
A Division of American Cyanamid Company
Pearl River, New York



Especially useful in chronic pain, Darvon® Compound-65 effectively relieves inflammation and pain . . . does not cause addiction or tolerance (. . . and Darvon Compound-65 doesn't require a narcotic prescription). Each Pulvule® Darvon Compound-65 provides 65 mg. Darvon®, 162 mg. acetophenetidin, 227 mg. A. S. A.®, and 32.4 mg. caffeine. Usual dosage is 1 Pulvule three or four times daily. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.



DARVON® COMPOUND-65



Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly); Darvon® (dextro propoxyphene hydrochloride, Lilly) (α-d-4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane hydrochloride); A.S.A.® (acetylsalicylic acid, Lilly)

220212

Ultrastructural Diseases of Platelets

John W. Rebuck, M.D., Ph.D.

Raymond W. Monto, M.D.

A most intriguing and comprehensive discussion of a complex laboratory and clinical problem. The authors have pointed out clearly the difficulties in establishing an accurate diagnosis with platelet abnormalities. This paper forms a good basis for appreciation of further material which undoubtedly will be forthcoming.

UNTIL recently there have been two major groups of platelet diseases based largely on the platelet count: The thrombocytopenias with their low platelet counts, and the thrombocytoses and thrombocythemias characterized by elevated platelet counts. Patients with thrombocytopenia are prone to abnormal bleeding, particularly petechial and membrane oozing; while those with elevated platelet counts are usually asymptomatic as to abnormal platelet functioning, although a tendency to thrombosis and bleeding may sometimes be observed.

Thrombocytopenia is usually brought about by depression of the megakaryocytic system of cells in the red bone marrow. The fragmentation of the cytoplasm of the adult megakaryocytes into the bone marrow sinuses leads to platelet formation. Depression or destruction of the megakaryocytes by cytotoxic drugs or chemicals, infections, tumor replacement, leukemias, irradiation, excessive heat (heat stroke), idiopathically — as in aplastic anemia, or metabolically — as in pernicious anemia, leads directly to secondary thrombocytopenia. In addition to the low platelet counts discovered in such patients, examination of the marrow aspirate reveals reduced or absent megakaryocyte numbers. Because platelets support capillary walls, as one of their many functions, reduction in their numbers leads to positive capillary fragility tests (positive tourniquet tests). Another platelet function is to aggregate at the cut ends of small vessels, thus constricting them and sealing them off; reduction in platelet numbers thus leads to

prolonged bleeding times. Low platelet counts are always accompanied by poor clot retraction because of the direct involvement of the platelets in this process. Although platelets release a substance (platelet factor 3), which interacts with antihemophilic plasma factor in some way to serve like thromboplastin in the acceleration of the conversion of prothrombin to thrombin and hence in the acceleration of clot formation, low platelet counts in themselves rarely, if ever, lead to prolonged clotting times. Apparently even a few thousand normal platelets release sufficient platelet factor 3 to accelerate sufficient prothrombin conversion to bring about clot formation within normal time limits. However, if a more subtle study is made of this reaction, by doing a prothrombin consumption study, the overall deficiency of platelet factor 3 — occasioned by the low platelet numbers, can be detected. In this latter test a prothrombin time is done as usual. However, the residual serum expressed from the original clot is saved and a second prothrombin time is performed on it. If normal amounts of platelet factor 3 activity had been present in the first place, all the prothrombin would long since have broken down into thrombin, so that no clotting could occur in a second test performed on the residual serum. However, there is so little platelet factor 3 released in thrombocytopenic blood, that in spite of the fact that it is sufficient to initiate clotting in the first prothrombin time within normal time limits, still it is insufficient to use up all the prothrombin available at the time of the first test.

As a result, when a second prothrombin time is performed on the residual serum of a throm-

Address presented at the 70th Annual Meeting, The Arizona Medical Association, Scottsdale, April 29, 1961.
The Divisions of Laboratory and Clinical Hematology, The Henry Ford Hospital, Detroit, Michigan.

Original Articles

bocytopenic patient, so much prothrombin has remained unconsumed that his second test clots promptly.

In idiopathic thrombocytopenic purpura, the patient forms antibodies against his own platelets. Since the megakaryocytic system itself is not destroyed, at least for long periods of time, by the action of such antibodies against its platelet-forming peripheral cytoplasm, a paradoxical situation develops which can be detected in the bone marrow examination. The situation is this: in the face of a low peripheral blood platelet count, the megakaryocytes are numerically present in high normal or increased amounts, although their cytoplasmic fringes appear damaged and are certainly not bearing platelets. Such patients demonstrate anti-platelet antibodies in their blood; otherwise their laboratory studies are similar to the first group of thrombocytopenias described above. Occasionally anti-platelet antibodies are formed in the course of other known disease processes such as secondary splenomegaly, disseminated lupus erythematosus, infectious mononucleosis, leukemia, or malignant lymphoma. Such conditions are rightly designated as secondary or symptomatic immune type thrombocytopenic purpuras. The marrow presents a similar paradoxical hyperplasia of platelet-poor megakaryocytes. Less commonly, thrombocytopenia is accompanied by multiple thromboses, acquired hemolytic anemia and disturbances in the central nervous system, and is spoken of as thrombotic thrombocytopenic purpura. In the immune types of thrombocytopenic purpura the platelet antibodies are attacked with steroids, or the antibody forming cells which reside predominantly in the spleen, are deleted by splenectomy.

Increased platelet counts are noted following hemorrhage, splenectomy, or as a part of polycythemia vera, agnogenic myeloid metaplasia, or at times in the early phases of chronic granulocytic leukemia. Rarely the increase is idiopathic, and is spoken of as thrombocythemia. Megakaryocytes are increased in the marrow. Symptomatically there may be some tendency to thromboses, although a puzzling tendency to abnormal bleeding may also be noted. Some explanation for this will be available after a consideration of the ultrastructural diseases of platelets.

For decades, hematologists have noted evidence of abnormal bleeding in patients whose platelet counts fell within the normal range. This

large group of bleeding patients, when studied, was the source for the elucidation of one after the other of important plasma coagulation factors designated by Roman numerals, and their descriptive or eponymic titles. With the delineation of this group of diseases, characterized by deficiencies of one or the other of the plasma coagulation factors (hemophilia, Ac globulin deficiency, afibrinogenemia, Christmas factor deficiency, hypofibrinogenemic syndrome, Vitamin K deficiency states, to mention but a few), there still remains a large group of patients with abnormal bleeding, presenting with normal platelet counts and normal plasma coagulation factors. Sometimes, but not consistently, such patients have positive tourniquet tests or prolonged bleeding times, which suggest acquired or hereditary increased capillary fragility. Indeed, scurvy became the prototype of the diseases associated with increased capillary fragility. Sometimes, but not consistently, such patients have poor clot retraction — which suggested to the Vienna School of Hematologists that platelets could be normal in numbers and yet deficient in the performance of some of their many functions, so that thrombasthenia was introduced early as a term description of such conditions.

As the enumeration of the plasma coagulation factors neared completion, and as the understanding of the platelet factors and functions reached considerable proportions, the time was ripe for a series of clear-cut demonstrations that abnormal bleeding could result from disturbed platelet function, even though platelet numbers were normal. The electron microscope was the final tool needed for the study. As seen with the electron microscope, circulating platelets are disc-like and electron opaque, (Fig. 1). Eight minutes after venipuncture, in control heparinized blood, nine normal subjects studied still presented almost 10% of their platelets in this round stage or with a few small pseudopods beginning to form. The first change observed in normal shed platelets was their quick protrusion of long, sticky dendritic processes or pseudopodia (Fig. 2). Now the dark central osmiophilic granulomere can be distinguished from the paler processes of the hyalomere. Eight minutes after venipuncture, normal individuals present 76% of their platelets as such dendritic forms. As soon as this dendritic stage is reached there is a tendency for such platelets to stick to one an-

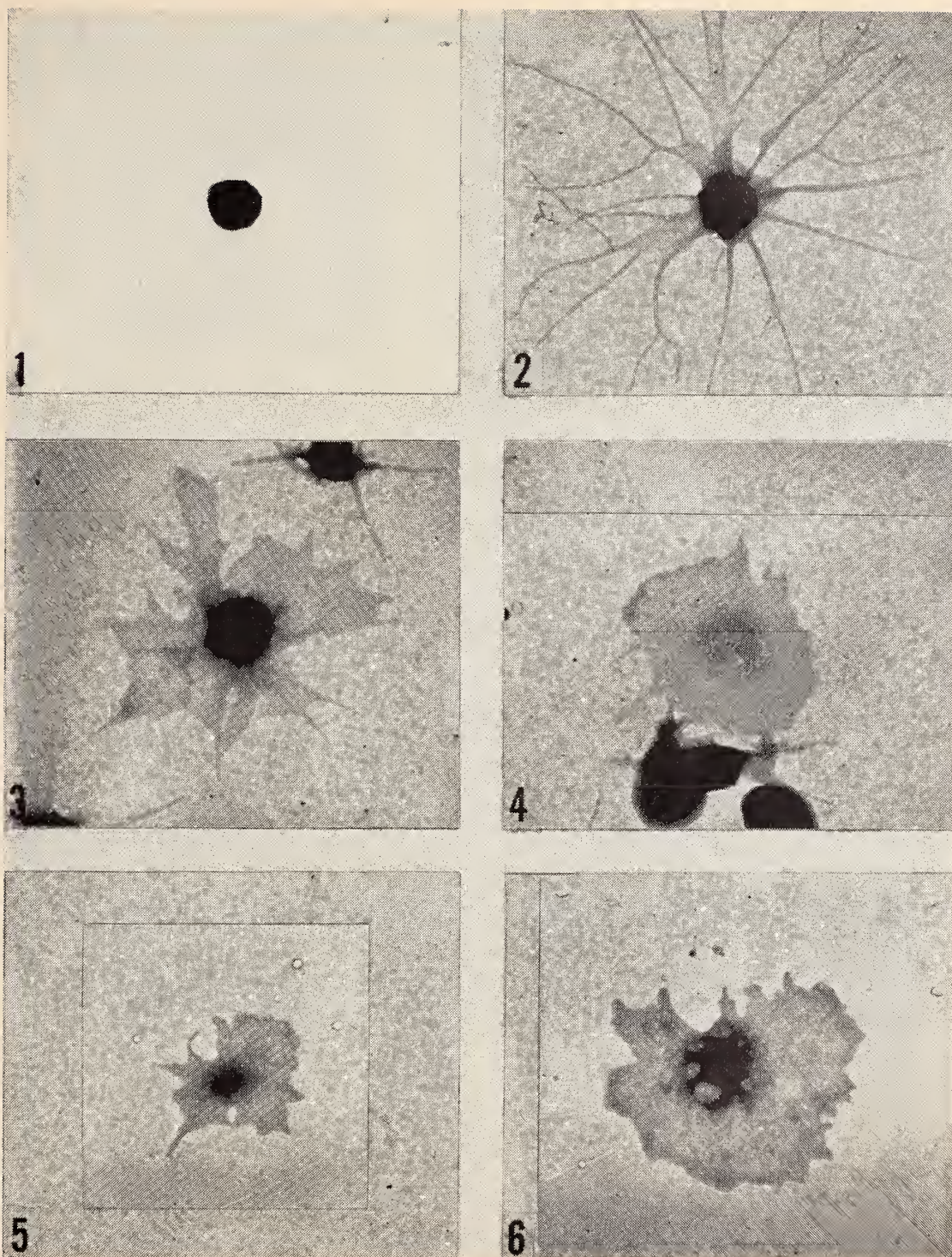


Fig. 1. Circulating or round form. Heparinized, fixation OS04 eight minutes after venipuncture. X5000.

Fig. 2. Dendritic form, control. Treatment as in Fig. 1. X5000.

Fig. 3. Intermediate form, control. Treatment as in Fig. 1.

Fig. 4. Control spread form. Treatment as in Fig. 1. X5000.

Fig. 5. Intermediate, thrombocytopathy. Treatment as in Fig. 1. X5000.

Fig. 6. Spread, thrombocytopathy. Treatment as in Fig. 1. X5000.

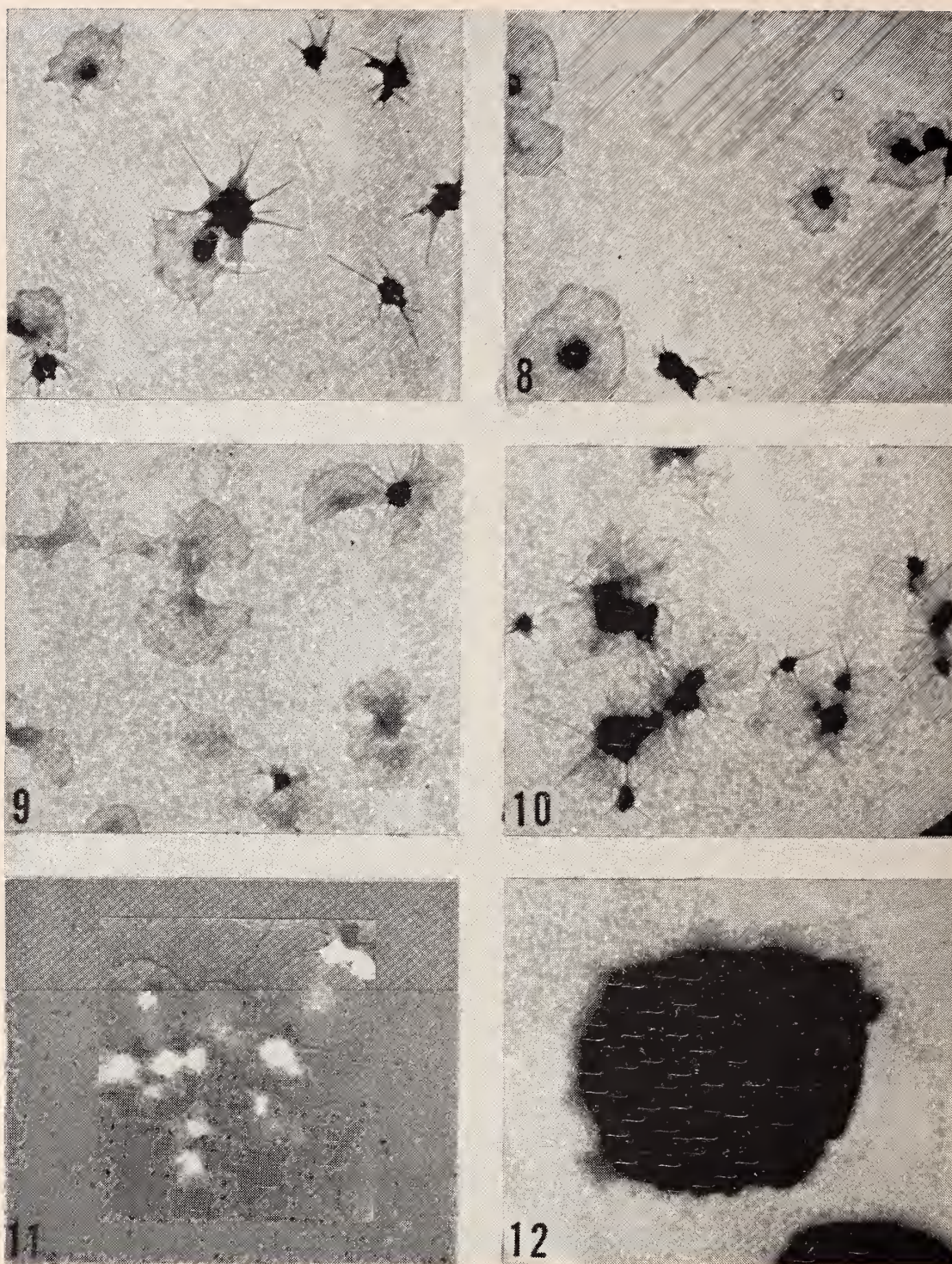


Fig. 7. Dendritics and intermediates. Treatment as in Fig. 1. X2000.

Fig. 8. Thrombocytopathy, predominance of intermediates and spreads. Treatment as in Fig. 1. X2000.

Fig. 9. Thrombocytopathy, predominance of early spread-aggregates (VMs). Treatment as in Fig. 1. X2000.

Fig. 10. Thrombocytopathy, predominance of spread-aggregates (VMs). Treatment as in Fig. 1. X2000.

Fig. 11. Control platelet forms shadow-cast. Eight minute stage. X2000.

Fig. 12. Serrated border produced by antibodies in ITP. Treatment as in Fig. 1. X13,200.

other (Fig. 11). This property of the sticky dendritic forms to clump quickly results in early viscous metamorphosis, or VM, as we will refer to such platelet aggregation; the normal has 6 such dendritic VM's per 100 isolated platelets classified under the electron microscope; 4% of the normal platelets remain isolated as their hyalomere begins to fill in the webbing between the dendritic processes (Figs. 3 and 7); and such forms are referred to as intermediate stages; 10% of normal platelets reach a fully expanded or spread stage (Fig. 4) eight minutes after venipuncture, in control heparinized blood. Note carefully that at this final stage almost all the granulomere has been lost in such spread platelet forms. Johnson and her associates(8) have shown that the platelet factor 3 activity . . . that is, the thromboplastic activating factor of the platelet, resides in the granulomere. We can conclude that somewhere between the intermediate and spread stages of platelet transformation, platelet factor 3 activity has been furnished to its surrounding media in control preparations.

In 1953, and again in 1956, Braunsteiner and his fellow workers (2,3) described five cases of constitutional thrombocytoasthenia, which presented a uniform clinical picture with a tendency to bleeding from the mucous membranes, but normal platelet numbers, normal coagulation factors, and absence of abnormal circulating anticoagulants and platelet agglutinins. Clot retraction showed manifest or latent abnormality. Electron micrographs revealed a severe defect of pseudopodial formation and a lack of platelet spreading. The majority of the platelets appeared as in our Fig. 1, or with but short, scant pseudopodial processes. Since pseudopodial formation and spreading of the platelets are the structural manifestations of the adhesive property of platelets, it is not surprising that such platelets sealed off defects in the small vessels poorly and, failing to aggregate in VM formation, could not bring about proper retraction of the clot. For these reasons Braunsteiner preferred the name of thrombocytoasthenia as more descriptive of the actual platelet fault in this condition, than the older term thrombasthenia. Born(1) had reported that in normal platelet transformation during clot formation, the abundant ATP known to be in control platelets rapidly disappeared. Gross and his group(6) made use of this finding in their study

of the metabolism of platelets from cases of constitutional thrombocytoasthenia and established that the platelets of such individuals showed marked depression of the two key glycolytic enzymes: glyceraldehyde phosphate dehydrogenase and pyruvate kinase. Addition of ATP and Mg ions *in vitro* restored clot retraction to normal in such patients.

In 1956 Braunsteiner and Pakesch(3) described a second group of patients with clinical hemorrhagic disease, with all known bleeding and coagulation tests normal save for a tendency to a prolonged bleeding time and poor prothrombin consumption. They referred to this second qualitative platelet disease by the appropriate term, "thrombocytopathy." Electron microscopy of the platelets from three of the five original patients were characterized by excessive platelet spreading. Platelet differential counts performed on platelets from the heparinized blood of eight such patients studied in our clinic, were made on preparations similarly fixed eight minutes after venipuncture. Round and dendritic forms were greatly diminished; in their place were the significantly increased intermediates (Fig. 5) comprising 22% of the platelet forms and the even more numerous (43%) spread forms (Fig. 6). At a lower power, a preparation (Fig. 7) fixed at the same eight minutes reveals the maximum number of intermediates observed in control subjects; even here the dendritic forms predominate. Typical of the increased spreading to be found in patients with thrombocytopathy is the field presented in Fig. 9. A more remarkable deviation from the normal was the tendency for the spread thrombocytopathic platelets to aggregate both granulomeres and hyalomeres into large aggregates of viscous metamorphosis (Fig. 10). Careful study of the platelets depicted in Figs. 6, 8 and 19 further reveals that the spread forms in these patients, and the aggregates formed by the spread forms, have failed to release their granulomeres. Compare the thrombocytopathic platelets with the normal spread form in the center of Fig. 4. Johnson and her group, working in our laboratories(7), subjected the platelets of thrombocytopathic patients to sonic oscillations in the test tube and proved that such platelets did indeed contain normal amounts of platelet factor 3 (thromboplastic activity) when they were subjected to sonic oscillations *in vitro*, but without such manipulation they were unable to release this

Original Articles

material to plasma. Since it has been mentioned above that the platelet factor 3 activity of normal platelets resides in their granules, Figs. 6, 8 and 10 actually depict the failure of these thrombocypathic platelets to release such activity. The poor prothrombin consumption exhibited by thrombocypathic patients could now be explained not by insufficient numbers of platelets being unable to convert all the prothrombin to thrombin, as was the case in the thrombocypenic patient; but by the fact that the numerically normal platelets of thrombocypathic patients were ultrastructurally incapable of converting much prothrombin to thrombin because they have great difficulty in releasing the thromboplastic substance (granules) necessary for prothrombin consumption. Furthermore, such thrombocypathic platelets, when added to antihemophilic factor, Christmas factor and Ca ions, were unable to promote normal clotting in the test tube. This latter test has been called the thromboplastin generation test. In retrospect it can now be seen how this group of patients of either sex, with clinical hemorrhagic disease marked by bleeding from mucous membranes, and susceptibility to marked purpura from the slightest trauma, and showing a familial tendency, were suspected of having hereditary capillary fragility since the only positive test among those formerly available was the prolonged bleeding time. The poor prothrombin consumption time in the face of normal platelet numbers, the poor thromboplastin generation using the patients' platelets, the retention of their granules as seen under the electron microscope, and finally the restoration of their thromboplastic activity to normal after sonic disintegration, all established the ultrastructural basis of this condition. The extreme degree of platelet aggregation encountered in this condition (Fig. 10) also explains the normal, almost enhanced, clot retraction noticed in these patients because such undue aggregation could not but help in facilitating retraction of the fibrin mesh.

The understanding of these two fundamental ultrastructural defects in platelets, thrombocyposthenia and thrombocypathy, has led to the unfolding of an entire series of hitherto unexplained new qualitative platelet diseases(10, 11). The abnormal bleeding in uremia is frequently due to the thrombocypenia occasioned by the toxic depression of the marrow with the resultant

megakaryocytic hypoplasia, but several cases have now been reported of abnormal bleeding in uremia, in which platelet numbers were normal but an acquired thrombocypathic condition, not reversible by sonic oscillation, is engendered in the platelets by the uremic plasma(4). A study of the abnormal bleeding observed in patients suffering from macroglobulinemia of Waldenstrom revealed that these patients present acquired thrombocyposthenia in the sense that the macroglobulins non-specifically coat the surfaces of the numerically normal platelets in these patients and, by so coating them, prevent dendritic or pseudopodial formation so that eight minutes after venipuncture the majority of such platelets are still in the unchanged form of Fig. 1. Pachter and his associates(9), in our laboratories, have been able to demonstrate such coating by adding fluorescent antimacroglobulin antibody to the macroglobulinemic platelets and eliciting specific fluorescence on the platelet surfaces. Furthermore, the addition of macroglobulins to normal platelets will inhibit normal platelet spreading. In this respect we are now in a position to suspect, in the thrombocypenias themselves, that a qualitative defect may be superimposed upon the quantitative platelet deficiency itself. Study of the individual platelets, from five patients suffering from ITP, each demonstrating a positive antiplatelet antibody test and a severe thrombocypenia, revealed that eight minutes after venipuncture 66% of the platelets were unable to put out their sticky processes (Fig. 12). Instead, the scant hyalomere presents a gear-like border on which the antiplatelet antibody has pulled up small, distinct plateaus at the affected surface sites similar to those produced on sensitized erythrocytic surfaces by known antierythrocytic antibodies.

Whereas the failure to form dendritic processes in macroglobulinemia was brought about by non-specific coating of the platelet surfaces, in ITP a specific antiplatelet antibody produces a similar result. In pernicious anemia(12), the thromboplastic activity of the platelets is often deficient to a greater extent than the depression of platelet numbers alone would warrant; the major ultrastructural abnormality, prior to therapy, was the predominance of poor pseudopodial formation. In nine cases treated specifically so as to restore the erythrocytic values to normal, there was a continuance of platelet functional and structural abnormalities with in-

Original Articles

creased viscous metamorphosis and osmiophilic granulomeric retention of the platelets of pernicious anemia patients in remission. These explanations of the abnormal bleeding encountered in such patients, assumes increasing importance because of the contrasting excellent responses of the erythrocytic and leukocytic dysfunctions of pernicious anemia to specific therapy.

The finding of increased platelet counts, without obvious causation, are most suggestive of ultrastructural platelet abnormalities. Electron microscopy, of four cases of polycythemia vera with elevated platelet counts, revealed an abnormally high percentage of platelets (33%) still in the round or abortive stage eight minutes after venipuncture; but the most striking findings was an increase of platelet aggregates to 143 per 100 platelets counted. These platelet aggregates, furthermore, showed an unusual retention of their granules. All of these cases were marked by decreased platelet factor 3 activity. To date the data suggests that marked elevations of platelet numbers, without apparent clinical cause, are attempted compensatory outpourings of the megakaryocytic system of cells in an effort to try and make up for individual platelet ultrastructural and functional deficiencies by greatly increasing the circulating population of such affected platelets. Indeed, in our cases of polycythemia vera with thrombocytoses, prothrombin consumption was normal when the high platelet counts were tested, but when the platelet suspensions of such patients were reduced to normal numbers and tested, prothrombin consumption was manifestly poor. The data also affords some explanation for the paradoxical combination of a tendency to abnormal bleeding and a propensity for thrombus formation observed in such thrombocythemic patients, in that thrombocytoasthenic pseudopodial failure and decreased platelet factor 3 activity were accompanied by the most marked viscous metamorphosis formation we have as yet encountered in our studies.

We have purposely avoided, for the time being, much consideration of the diseases of abnormal bleeding arising from a deficiency of a plasma coagulation factor complicated by concurrent ultrastructural platelet abnormalities, yet we are becoming increasingly aware of the fact that such complications do occur. One of our severest cases of hemophilia, when studied in the manner outlined above, possessed throm-

bocytopathic platelets with significantly increased spread forms and VMs, as depicted in Fig. 9. Finally, it should be known that there is good evidence that Vitamin C deficiency leads to profound platelet disturbances(5).

IN SUMMARY, ultrastructural platelet dysfunction should be suspected in those patients of either sex who present with increased purpuric susceptibility after minor trauma, or with abnormal bleeding from the mucous membranes, when their platelet counts are found to be normal or elevated, and no deficiencies of their plasma coagulation factors are demonstrable. The findings that the platelets of such a patient support poor prothrombin consumption leads to a preliminary diagnosis of qualitative platelet disease. Confirmation rests, in increasing order of difficulty: (1) in the demonstration of abnormal thromboplastin generation with the patient's platelets as the test platelets; (2) in the identification of deficient platelet factor 3 activity utilizing the two-stage prothrombin determination, again with the patient's platelets as the test platelets, together with (3) electron microscopic differentials of the suspected platelets as direct evidence of ultrastructural platelet abnormality.

We are indebted to Dr. P. J. Howard, Editor of the Henry Ford Hospital Bulletin, for permission to reproduce Figs. 1 to 12.

REFERENCES

1. Born, G. V. and Esnouf, M. P. The breakdown of phospholipids and of other phosphorus compounds during coagulation of platelet-rich plasma. In *Blood Platelets* edited by Johnson, S. A. Little Brown and Co., Boston, 1961.
2. Braunsteiner, H., Fellingner, K., and Pakesch, F. Elektronenmikroskopische Untersuchungen der blut plättchen bei thrombasthenie. *Klin. Wchnschr.* 31:21-24, 1963.
3. Braunsteiner, H. and Pakesch, F. Thrombocytoasthenia and thrombocytopathia — old names and new diseases. *Blood* 11:965-976, 1956.
4. Cahalane, S. F., Johnson, S. A., Monto, R. W. and Caldwell, M. J. Acquired thrombocytopathy. Observations on the coagulation defect in uremia. *Am. J. Clin. Path.* 30:507-513, 1958.
5. Cetingil, A. Q., Ulutin, O. N. and Karaca, M. A platelet defect in a case of scurvy. *Brit. J. Haematol.* 4:350-354, 1958.
6. Gross, R. Metabolic aspects of normal and pathological platelets. In *Blood Platelets* edited by Johnson, S. A. et al. Little Brown and Co., Boston, 1961.
7. Johnson, S. A., Monto, R. W. and Caldwell, M. J. A new approach to the thrombocytopathies. *Thrombocytopathy A. Thromb. et Diath. Haemorr.* 2:279-289, 1958.
8. Johnson, S. A., Sturrock, R. M. and Rebeck, J. W. Morphological location of platelet factor 3 activity in normal platelets. *Proceedings of the Fourth International Congress of Biochemistry. Symposium X. Blood Coagulation: Vienna 1958.* Pergamon Press, New York 1959.
9. Pachter, M. R., Johnson, S. A., Neblett, T. R. and Truant, J. P. Bleeding platelets and macroglobulinemia. *Am. J. Clin. Path.* 31:467-482, 1959.
10. Rebeck, J. W., Riddle, J. M., Brown, M. G. et al. Volumetric and ultrastructural studies of abnormal platelets. In *Blood Platelets*, edited by Johnson, S. A. et al. Little Brown and Co., Boston, 1961.
11. Rebeck, J. W., Riddle, J. M., Johnson, S. A. et al. Contributions of electron microscopy to the study of platelets. *Henry Ford Hosp. Bull.* 8:273-292, 1960.
12. Riddle, J. M., Rebeck, J. W. and Monto, R. W. Platelet abnormalities in pernicious anemia. *Federation Proc.* 19:64, 1960.

Malignant Diseases Of The Colon

I. S. Ravdin, M.D.

A concise review of the problem of polyps of the colon. It presents relatively strong disagreement with the work done at Washington University in St. Louis which would preclude the adenomatous polyp of the colon as a precancerous lesion. This is against an appeal to remove the lesion that has the potential to become malignant.

I am delighted to have been asked to come here to address the Phoenix Surgical Society.

There are, perhaps, no premalignant lesions which can be treated so satisfactorily from the aspect of cancer prophylaxis as adenomatous polyps of the large intestine. These relatively common tumors are potentially malignant. They give rise to a substantial proportion of the carcinomas of the colon and rectum. In the great majority of instances adequate therapy can be undertaken while they are benign by procedures of no great magnitude and involving little hazard. For these reasons, such polyps may afford a direct approach to the prevention of a large number of the prevalent malignancies of the large bowel. It appears worthwhile to re-emphasize the need for their diagnosis and re-evaluate the therapeutic measures.

Although polypoid lesions of the colon and rectum may be of mesenchymal origin, these tumors are uncommon and rarely undergo sarcomatous degeneration. The epithelial tumors here under consideration constitute over 98 percent of the polyps and have a far greater predilection of malignancy.

By far the commonest neoplasm of the large bowel is the adenomatous polyp. The incidence at necropsy depends on the diligence of the examiner; in a recent large series reported by Helwig, it was 9.5 percent. In patient material the incidence is, of course, lower. Binkley, however, in "routine investigation" of over 300 cases

found adenomas in 6.4 percent. In autopsy material about half or more of these neoplasms are found in the rectum and sigmoid. A greater proportion of these lesions, benign or malignant, are within reach of the sigmoidoscope. The cecum and transverse colon follow in order of frequency. The incidence of adenomas increases with advancing age, with a sharp beginning in the fourth decade.

The *gross appearance* of these tumors varies considerably and is without special significance. They range from egg-size to those just visible with a simple lens. Most are pedunculated or show evidence of a stalk with overlapping edges of redundant mucosa; few are truly sessile. Their surface is greyish-pink to red, velvety, and shows varying degrees of lobulation.

Although they are frequently classified as single, multiple or diffuse, it is well to emphasize that the distinction is purely clinical rather than pathologic, and that even in clinical material it is exceedingly arbitrary. A group of cases can be singled out as 'diffuse,' which show extensive neoplastic involvement, often a familial incidence, and an almost certain prognosis of malignant outcome. Nevertheless, as survivals of colonic malignancy accumulate and instances of multiple cancers are documented, it becomes increasingly evident that there is a considerable group with "multiple" polyps, again often a familial incidence, and an amply demonstrated predisposition to carcinoma formation. Such cases are distinguishable only in degree from the "polyposis" of Cripps and Lockhart-Mummery and Dukes.

Presented before the Phoenix Surgical Society, Camelback Inn, Scottsdale, Arizona, on May 9, 1961.

Vice-President for Medical Affairs, University of Pennsylvania; Professor of Surgery, School of Medicine, University of Pennsylvania.

The polyps themselves, prior to carcinomatous degeneration, are in no way to be differentiated from the adenomas found in patients without known cancer. Classical polyposis coli would thus appear very likely to be merely an advanced manifestation of a frequent disease process, a manifestation in which the eventual tragic outcome is more easily predictable on a statistical basis. This viewpoint is based on the belief that adenomas of the large bowel are in reality pre-malignant lesions.

The recent study by Spratt, Ackerman, and Moyer challenges this concept. These authors state:

"The theory of the origin of adenocarcinomas of the colon within adenomatous polyps has little to support it.

"We can find no real evidence that adenomatous colonic polyps become infiltrating, metastasizing cancers of the colon.

"The observed frequencies of occurrence of minute infiltrating adenocarcinomas arising in non-polypoid colonic mucous membrane are adequate to account for the annual incidence of carcinoma of the colon of 45 per 100,000."

The competency of these investigators and the forcefulness and provocative nature of their report have challenged us to review our material at the Hospital of the University of Pennsylvania, and the reports of others, with a view to determining the malignant potential of adenomas of the colon and rectum.

At the present time it is obviously impossible to select a statistically significant sample of patients with adenomas and remove these lesions in half of the patients while following, with observation only, the other half. This, of course, would be the ideal test for the hypothesis that adenomas are, or are not, pre-malignant lesions and that their removal reduces the death rate from cancer of the colon. Short of this, the validity of the hypothesis that adenomas are precursors of cancers must rest on evidence that is circumstantial and indirect.

Experience at the Laboratory of Surgical Pathology of the University of Pennsylvania Hospital has not been identical with that described above. Drs. H. T. Enterline, George Evans and J. T. Orr are in the process of reviewing all frank carcinomas of the colon and rectum as well as all adenomas which have

been diagnosed as containing areas of carcinoma. Although the study is incomplete at the present, Dr. Enterline has seen a number of frank carcinomas which, in his opinion, contain undeniable remnants of adenomas. In a sixteen year period (1943-1958) adenomatous polyps were removed from approximately 1500 patients and studied in this laboratory. About 10 percent of the excised polyps show areas of atypia and at least 2½ percent show definite evidence of stromal or deeper invasion, which would be diagnosed invasive cancer by almost all pathologists. A small number showed conclusive evidence of stalk invasion, and, in some cases, involved the entire stalk and subjacent bowel wall. Although no metastases to lymph nodes were noted when the cancer was limited to the body of the adenoma (in agreement with Dr. Ackerman), instances of lymph node metastases were found when the stalk was invaded to its base. We believe that the important fact is that all variations from frank metastasizing carcinoma to minor degrees of atypia within the polyp can be found in any large group of adenomas.

Our statistics further reveal that a comparison of the location of polyps removed from these 1500 patients compares favorably with 812 carcinomas of the colon and rectum resected during the 12 year period, 1940-1951. Although not identical, the distribution of adenomas and cancers is approximate (Fitts Report). The most striking dissimilarities are in the cecum, where cancer predominates, and the rectum, where adenomas predominate. The fairly close distributions between adenomas and cancers certainly suggests a casual relationship. If an adenoma in every location of the colon and rectum had the same malignant potential, and if all cancers developed from pre-existing adenomas, then one would expect identical distribution. It is difficult to see how one can assume the same malignant potential irrespective of location. A variety of factors might be responsible for this difference, including physical pressures in different parts of the bowel, chemical environment, etc. The St. Louis Group, I believe, fails to take this into account.

In our experience, adenomas of the colon and rectum are present more often in patients who have a carcinoma of the bowel than in patients in whom no carcinoma is found. About 20 percent of our patients with single carcinomas had associated polyps. In a group of 21 patients who

Original Articles

underwent resection for multiple simultaneous primary carcinomas, associated adenomas were present in 16, an incidence of almost 76 per cent. Finally we have followed only a very few patients in whom the diagnosis of adenoma has been made, either by inspection through the sigmoidoscope, or by roentgen examination and on whom no operation was performed. In some of these, however, what appeared to be a typical adenoma later proved to be a frankly invasive metastasizing cancer.

The evidence cited above has convinced us that adenomas of the colon and rectum do possess a definite malignant potential.

Strong support for this contention has been offered from a number of sources. Swinton and Warren, for example, in a study of over 800 carcinomas of the colon, were able to classify 14 percent definitely as malignant adenomas. Charles Mayo found polyps associated with known carcinoma in 34 percent of his colon cases, and reported that 14 per cent of these showed malignant change; in Helwig's material over half of the carcinomas were associated with one or more adenomas.

The criteria of Swinton and Warren for *malignant change* in adenomatous polyps have gained wide acceptance. They are, in essence: cellular variation; abnormal mitoses; and loss of basal polarity of the nuclei; change in glandular pattern; anaplasia; and invasion. Adenomas may show any degree of carcinomatous degeneration from one or two glands with interglandular budding and stratified, hyperchromatic cells, to a large area of infiltrative anaplastic tumor involving the adjacent bowel wall. It is of the greatest importance, that the pathologist and the clinician have close liaison to interpret the findings of "carcinoma" in terms of treatment of the patient. A tumor demonstrating invasion necessarily commits the clinician to a radical approach; a tumor with a small area of more refined cytologic change, which may be regarded as carcinoma *in situ*, is adequately treated by extirpation. A few borderline cases will require the most judicious acumen, for which no simple formula can be substituted.

McLanahan, Grove and Kiefer, reporting a series of malignant polyps treated by polypectomy, found frank adenocarcinoma in the follow-up of five of fifteen patients with polyps showing invasive malignancy, whereas of twenty-

three patients with noninvasive malignant change, four had "simple recurrence" of the polyp. Fortunately, the critical criterion of invasion is the one most likely to be determined by the pathologist in the rapid section technic which makes information available at the operating table.

Symptoms: "The symptoms of polyps of the large intestine vary both as to kind and intensity, and a discussion serves mainly to stress the vital importance of thorough investigation of any symptoms referable to the colon or rectum. Many adenomas, indeed, cause no symptoms whatsoever, and are discovered incidentally. A change in bowel habit is difficult to assess, but is commonly found in neoplastic disease of the colon. Bleeding is a common symptom of polyps, especially of the lower colon, which polyps tend to be friable, and it has been repeatedly pointed out in studies of carcinoma of the rectum and rectosigmoid that an embarrassingly large number of such patients have undergone hemorrhoidectomy or other anal surgery shortly before the discovery of the tumor. Tenesmus and mild colicky pain are also seen with significant frequency. Rarely a large polyp may cause partial obstruction or lead to an intussusception.

Diagnosis: The diagnosis must be made by visualization, either directly or by roentgenographic methods. For lesions in the distal 20 to 25 cm. of bowel, there is no substitute for proctoscopy; radiologic study in this area is frequently unsuccessful. Proctoscopic examination is not difficult to perform. It can be done readily on office patients, or, if necessary, at the bedside. Elaborate apparatus is unnecessary, and little time is consumed, since out-patients can adequately prepare themselves. There is a growing tendency, therefore, to include proctoscopy in the routine work-up of patients in older age groups, in addition to the absolutely mandatory digital examination. Roentgenographic study is best performed by the air-barium double-contrast technic, since the simple opaque enema commonly obscures benign, nonobstructive lesions which are readily visible after insufflation of the barium-coated mucosal surface. Economic considerations often have precluded the use of routine radiologic survey; but the selection of cases must include all symptomatic patients, *even if a lesion has been found by proctoscopy*. In this connection, it is well to recall that the incidence of additional adenomas

in association with a benign or malignant neoplasm approaches 50 per cent (i.e., about one half of cases with polyp have multiple adenomas), so that the demonstration of one lesion should not deter but rather stimulate a further search.

Treatment: The treatment of adenomas consists in extirpation of all involved tissue, which can as a rule be accomplished by simple means. The essential consideration involved is obviously differentiation of polyps with malignant change; therefore, as much tissue as possible, preferably the entire specimen, must be submitted to the pathologist. Dependence on gross examination will result in irredeemable mistakes. Most adenomas within reach of the proctoscope may be removed through it. The stalk of a pedunculated lesion should be divided at its base with the biopsy forceps; fulguration is optional. Sessile lesions, or those with a broad, short stalk, when of the magnitude of about 1 cm. in diameter, are substantially removed in fragments with the biopsy forceps and the area thoroughly fulgurated.

An attempt should be made to excise completely sessile tumors of much larger size. It is often possible with adequate anesthesia to deliver such a tumor at the dilated anal ring by traction on the loose rectal mucosa. Occasionally a sphincterotomy is justifiable to enlarge the operative field. The opportunity thus afforded the pathologist to examine the intact specimen enables him to render a more reliable diagnosis. When it is elected to fulgurate a large tumor, multiple biopsies must be obtained on several occasions. Numerous instances have been recorded of the discovery of malignancy only after repeated efforts had been made to secure representative tissue.

An adenoma close to or above the peritoneal reflection which cannot be sufficiently excised by, or is inaccessible to, the biopsy forceps is a definite indication for laparotomy. Pedunculated or small sessile lesions are treated by colotomy and polypectomy. A margin of surrounding mucosa is included, and the defect closed transversely over the intact muscular coat. Such a procedure entails a low morbidity. The benign nature of the lesion is best confirmed at the operating table with rapid section (and of course later substantiated with permanent slides). Ability to separate the mucosal layer easily by in-

jection of saline solution has been suggested as a useful clinical sign, as well as the commonly recognized criteria of lack of ulceration and soft consistency. It is extremely difficult, however, to certify the whole of a broad plaque of adenomatous tissue as nonmalignant; colon resection seems inevitably the safest course to follow. A segment of the colon which has been shown to contain multiple polyps should also be resected, since the risk of so doing is not appreciably different from that of multiple or wide colotomy, and the assurance of completeness is greater.

Location of radiologically demonstrated polyps at laparotomy may prove an exasperating experience. Polyps on a long stalk move considerable distances along the bowel and may elude the most careful palpation. Gentle occlusion of the lumen with a rubber-shod clamp allows the mass to be sensed more easily as its progress is arrested after being milked toward the clamp. If the limits of ascent and descent are ascertained, an incision roughly at the midpoint will overlie the base of the lesion. Both hands should be used for palpation in order to feel a complete cross section of the colon, and prevent a mobile polyp from slipping along one side while the examiner palpates the other. A sterilized proctoscope may be introduced through a colotomy in different cases. Such a maneuver increases the likelihood of contamination, but may prove invaluable in checking a roentgenographically suspicious area from a necessary colotomy site, or in determining the extent of involvement with multiple adenomas, prior to colon resection.

The use of antibiotics prior to operative procedures on the large bowel has gained large acceptance, though they by no means replace thorough cleansing by laxation and enemas. Sulfasuxidine and oral streptomycin in combination are efficient drugs for lowering the fecal bacterial count; the newer antibiotics (neomycin, etc.) are equally effective, but appear to have few advantages to offset the additional expense. To anticipate a possible radical resection, the passage of a Miller-Abbott or similar tube well into the ileum is advisable as a preoperative precautionary measure. The resulting plication of the small intestine on the tube will also facilitate its exclusion from the operative field.

Assiduous follow-up is imperative after the indicated therapeutic procedure. These patients

Original Articles

have manifested a definite tendency to tumor formation which cannot be ignored. Furthermore, since adenomas frequently occur in multiples, it may be assumed that in a number of cases polyps are already present which have not reached diagnosable size. Proctoscopy can readily be performed at intervals of six to twelve months. Polyp studies by the roentgenogram are usually not feasible with such frequency in the asymptomatic patient; they are recommended at once at a short interval and thereafter perhaps every two to three years, or at the onset of symptoms.

An early description of diffuse polyposis and the first recognition of its hereditary nature are due to Cripps. Subsequent studies by Dukes and Lockhart-Mummery established this clinical entity and left little doubt as to the inevitable prognosis of malignant degeneration. The subject was excellently reviewed by Turnbull and the late Tom Jones in the *Surgical Clinics of North America* in 1948. In brief, this condition is characterized by extensive adenomatous change of the colonic mucosa, with massive number of polyps increasing in density from the cecum to the rectum. The disease has a distinct familial tendency. The polyps are not usually present at birth, but begin to appear around adolescence and increase rapidly in the second and third decades. The presenting symptoms are bloody and mucoid diarrhea, pain and tenesmus. Barring intercurrent disease, these patients, uniformly succumb to carcinoma, often at an early age.

As pointed out before, this disease differs only in degree from less advanced, "multiple" adenomatosis. From one point of view the problem posed by polyposis coli is actually simpler, since one does not hesitate to perform extensive surgery, whereas balancing the risk of colectomy against the chance of malignant change in a patient with a dozen or so widespread *demonstrable* polyps may be a formidable undertaking. On the other hand, one important aspect of the problem is more easily answered for the patient with fewer polyps; this is the question of preservation of the rectal sphincter. This question has been the concern of most discussion of polyposis in the recent surgical literature.

Although there is no disagreement about the necessity of total abdominal colectomy, several writers have advocated low ileosigmoidostomy

and proctoscopic treatment of the remaining polyps, rather than removal of the rectum and permanent ileostomy. Maintenance of rectal continence has obvious aesthetic advantages, especially since many of these patients are relatively young. It has the disadvantages of offering no assurance against a carcinoma which may already have occurred in the unexcised portion, and of subjecting the patient to the hazard of developing a carcinoma between follow-up appointments. Cases of "multiple" adenomas, where a limited number of polyps can be excised and examined microscopically, are ideally suited for ileosigmoidostomy; a few cases of "diffuse" adenomas, which have so much involvement that almost the entire rectal mucosa need be sacrificed, preclude the operation. In the majority of patients with diffuse polyposis, ileosigmoidostomy is perfectly feasible, but fulguration must be used thereafter. Dr. Dunphy has pointed out that polyps of the rectum may occasionally regress following subtotal colectomy and ileo-rectal anastomosis.

Having encountered cases in which it has not been successful and carcinoma ensued, we have in general favored the Miles' operation and permanent ileostomy, admitting its drawbacks, feeling that the patient's security compensated for his inconvenience, and relying on the modern skin-attached ileostomy appliance, dietary and drugs to alleviate in some measure the more distressing symptoms. Recently Devine and Webb have proposed an operation in which the mucosa of the rectal segment is dissected off the muscular wall and the ileum drawn down to the anal ring within the muscular tube, thus presumably sparing the sphincter innervation and rectal reflexes. This enterprising solution of a perplexing situation merits further clinical trial.

Inflammatory polyps of the colon and rectum occur as the result of long-standing chronic colitides, especially idiopathic ulcerative colitis. The incidence of polyp formation in this disease is estimated at 10 per cent. The lesions tend to develop diffusely and to appear in greater numbers, progressing distally along the bowel and following the pattern of the original ulceration. They consist of a granulomatous stroma with heavy inflammatory infiltration, and overlying epithelium showing varying degrees of hyperplasia. They are not primarily adenomatous in origin; however, the tendency of the epithelial

elements to neoplastic change has been stressed by Barga and is now fully recognized. The significance of this neoplasia is reflected in the reports from the Mayo Clinic, the Lahey Clinic, and the University of Michigan of carcinoma of the colon as a late complication of ulcerative colitis. Although the true incidence of malignant degeneration has not been determined, it is decidedly greater than that of the general population. In Sauer and Barga's series over 50 per cent of such carcinomas were associated with inflammatory polyps.

These and similar findings have altered the conception of "pseudopolyposis" and forced it to be regarded as a premalignant state. There is thus a firm rationale for the recommendation of total colectomy in this condition. The onset of polyposis in the great majority of these patients represents the failure of conservative measures in poorly controlled disease of extended duration. Many cases have come previously to ileostomy. When such defunctionalizing does not bring about regression of the inflammation, the presence of the diseased bowel leads to sufficient physiologic derangement to be in itself an indication for colectomy, and the threat of malignancy is merely an additional consideration. This threat should, however, mitigate in favor of operation in certain borderline cases in which an attempt might otherwise be made to carry on with less drastic management.

Since inflammatory polyposis, as well as the original ulcerative process, is almost invariably most severe in the distal sigmoid and rectum, it would not appear that ileosigmoidostomy can be done. This is not to say that such a procedure had no place in the treatment of ulcerative colitis; and we have successfully restored intestinal continuity in selected patients who have responded satisfactorily to partial colectomy and temporary ileostomy. One cannot anticipate a

reversible state when the disease has progressed to polyposis; furthermore fulguration of the rectum in the presence of ulcerative colitis is certainly not advisable. Colectomy and combined abdominoperineal resection is, therefore, the logical course. This can be performed in one stage in an adequately nourished patient with supportive transfusion. Poorer risks must be in stages according to the judgment and experience of the surgeon.

It is well not to adopt a too conservative attitude, since substantial improvement in the clinical condition can be expected after abdominal colectomy, whereas a limited resection is likely to be of little immediate benefit. The former procedure not only subjects the patient to fewer operations, but also as a rule, shortens the interval between stages and brings the patient to the perineal resection a better risk than he had previously been. When the colectomy is staged, the distal bowel must be exteriorized because of the danger of poor healing, abscess, fistula formation, or peritonitis inherent in an attempt to close the diseased stump. Determination of blood volume and preoperative restoration to normal use is of particular value in these patients, who often suffer significant chronic blood loss.

Cancer of the colon and rectum is one of the most prevalent cancers in the United States and appears to be increasing. It affects all ages. From studies of the annual incidence rate made in selected areas of this country, it can be expected that about 80,000 cancers of the colon and rectum will be found for the first time during 1961. Clearly this lesion is an important health problem and accordingly, a real understanding of polyp formation and the best therapy of these lesions in the large bowel will contribute materially to a reduction of this staggering figure.

The Emphysema-Bronchitis Syndrome

H. Corwin Hinshaw, M.D.

A review of chronic lung disease problem. Many interesting concepts as to etiology and aggravation are expressed as well as measures to benefit the patient physically and mechanically. Like most other diseases the emphasis on early diagnosis is strongly and rightfully stressed.

PREVALENCE

American physicians are becoming greatly concerned about the apparent increasing prevalence of this disease — or group of diseases — in this country. As a cause of death its incidence far exceeds that of pulmonary tuberculosis in some communities.(1) As a cause of chronic illness and disability its importance has not been calculated but surely losses are great and probably they are increasing.

In the British Isles — especially in England — rather reliable data indicate chronic bronchitis to be among the most important causes of chronic illness.(2) Its management consumes a large share of the general physician's efforts. Bronchitis is listed as a cause of death in England more frequently than any other pulmonary disease, being even more common than bronchogenic carcinoma. This is despite the fact that bronchogenic carcinoma is about twice as prevalent in England as in the U.S.A.

Surely patients have been dying of these diseases in America for a long time and more frequently than mortality statistics indicate. When they died of right heart failure — as they often did — the death certificate probably indicated heart disease as the cause of death. Terminal pneumonia is nearly universal in those who die of pulmonary insufficiency and respiratory acidosis and these deaths have not always been separated from those due to primary pneumonia. Asthmatic symptoms are very common in these patients and asthma may be listed as a cause of death.

Despite these reasons for doubting the reliability of the statistics most of us are convinced that there is a real increase as well as an apparent increase in prevalence of this disease. The situation is not unlike that which obtained when bronchogenic carcinoma first was becoming evident as a great plague of mankind. Indeed, lung cancer and emphysema-bronchitis attack the same population groups and probably have similar causes. To some extent both are increasing because more people survive to the age of degenerative and malignant disorders.

DEFINITIONS AND CLINICAL MANIFESTATIONS

At this point I must attempt a definition of this condition, although I am confident that there is no serious misunderstanding of the term; emphysema-bronchitis syndrome. In its typical forms and in its advanced stages it is easily recognized by clinicians, physiologists, radiologists and pathologists. The lungs are over-inflated. The finer air channels are narrowed and distorted with poor ventilation and uneven distribution of air. The alveoli are atrophic and elastic elements of the interstitial tissue are defective so the lung loses its ability to contract — its resiliency is greatly diminished. The circulation of blood to the lungs is disturbed and will become grossly inadequate as the disease progresses. Inadequate oxygen supply, inability to excrete carbon dioxide sufficiently and advancing polycythemia all have their clinical effects. Eventually lung failure and right heart failure nudges the victim to the brink of death.

I shall not emphasize the dreadful plight of the patient with advanced emphysema because I want now to direct your attention to the be-

Presented before the Scientific Assembly, 70th Annual Meeting, The Arizona Medical Association, Scottsdale, Arizona on April 29, 1961.

Clinical Professor of Medicine, University of California Medical School, San Francisco, California.

SOME CAUSES OF EMPHYSEMA-BRONCHITIS

ginning of the clinical picture. Can we define the conditions which led up to the permanent crippling of the patient with advanced emphysema? Can we identify incipient emphysema, or pre-emphysema bronchitis? Perhaps we can, not with precision but with sufficient confidence to warn certain patients of impending disaster.

Chronic bronchitis leads to emphysema. Before I attempt to convince you of the validity of this law I must define chronic bronchitis.

Bronchitis — as seen by the British — is primarily a clinical entity, although its pathology is now rather well known. A history of cough with morning expectoration and recurring acute chest colds over a period of a few years establishes a diagnosis of "British bronchitis" for all practical purposes. Of course it is implied that tuberculosis, bronchiectasis and other specific pulmonary diseases are excluded. This definition is deceptively simple but I now believe it to be essentially valid. We — like our British cousins — should become concerned or even alarmed when a patient tells us that he coughs and expectorates sputum in the morning for a few years and that he has two or three chest colds every winter. We should be even more alarmed if this patient mentions shortness of breath on unusual exertion. He is seriously threatened with one of the most unhappy states, one of the most dread diseases; emphysema.

We cannot say that all patients with clinical bronchitis are destined to become emphysema cripples. Many die of other diseases. But the risk is there and we believe that risk to be very great if symptoms are progressive — even very slowly progressive. Perhaps we shall someday be able to identify those who are developing progressive disease. Periodic pulmonary function testing would be one possible method. Recently some British writers have suggested bronchoscopic biopsy of the bronchial mucosa.(3) The pathology of British bronchitis is now rather well defined. We are eager to find out if changes are similar this side of the Atlantic.

Not all patients with clinical emphysema recite a history of long standing bronchitis and there must be other causes. However Gaensler and Lindgren reviewed the clinical histories of several hundred emphysema patients and learned that over two-thirds had given a history compatible with the clinical picture called bronchitis in England.(4)

Causes of bronchitis are not known completely but it is widely conceded that air pollution plays a very important role. Air pollution should include personal pollution with tobacco smoke. Bronchitis is unusual in the non-smoker. Emphysema is unusual in the non-smoker. Bronchitis and emphysema are much less prevalent in country dwellers and more prevalent in city dwellers, especially those who live in large industrialized communities. Bronchitis and emphysema (like bronchogenic carcinoma) are more prevalent among men than among women.

Occupational emphysema is well recognized and could be rather accurately measured and defined for the jurist if he were aware of medical advances in this field. A special form of emphysema — "centrilobular emphysema" is known to affect coal miners and probably others exposed severely and for many years to non-silicous particulate atmospheric pollution. It is most important to note that centrilobular emphysema may not be seen on x-ray films but that it can be identified pathologically and physiologically.

Many patients with silicosis suffer more from airway obstruction and emphysema than from the restrictive effects of pulmonary fibrosis. Now that tuberculosis is not the hazard that it was to the silicotic — for silicotuberculosis can be cured — more silicotics die of emphysema and cor pulmonale. These facts are not well recorded in the medical treatises usually consulted by attorneys.

The emphysema-bronchitis syndrome does not result from acute irritants or other acute environmental stresses although such experiences often cause the workman to become aware of his long evolving respiratory disease. It is absurd to attribute pulmonary disability to a few minutes of exposure to an irritant when the man has been intemperately smoking cigarettes for many years. Yet men with clear medical histories of clinical asthmatic bronchitis and tobacco abuse for many years have received unjust awards for injuries attributed to relatively trivial industrial exposure. Others have been denied well deserved compensation simply because the x-ray films failed to show evidence of occupational disease. All informed physicians, but especially physiologists, pathologists and a few radiologists recognize the unreliability of

Original Articles

x-rays in estimating occupational pulmonary disabilities but the Industrial Accident Commissions are often many years behind modern medical developments. Tradition may establish truth in law but not in medicine.

MANAGEMENT OF PATIENTS WITH EMPHYSEMA-BRONCHITIS

The prevention of severely disabling emphysema is a most important objective when the physician is advising a patient with incipient emphysema or pre-emphysema bronchitis. We are convinced that smoking in all forms is strongly contraindicated. It is astonishing to see how frequently patients with bronchitis symptoms, even in association with asthmatic complaints, continue to smoke — even to smoke excessively — and apparently with their physician's permission. Many times patients are exceedingly grateful when they consult a physician who refuses to compromise and demands that smoking cease. Patients have often said, "You are the first doctor who has insisted that I stop smoking, yet I have always realized that this was an important cause of my cough."

Other respiratory irritants, as well as tobacco smoke, must be avoided even if it means change of occupation or modification of living habits. The role of community air pollution in production of bronchitis and emphysema is not clear but there are many reasons to believe that clean air is necessary for patients with the bronchitis diathesis.

Undoubtedly localized chronic bacterial infection, including infections with the saprophytic organisms found in chronic sinusitis and bronchiectasis, have diffuse irritative effects on the entire respiratory mucosa. These infections should be sought out and treated.

The patient who expectorates purulent sputum constantly or repeatedly should be suspected of having bronchiectasis. Most of these should have bronchographic studies with iodized oil. It is important that the physician know if bronchiectasis exists and if so to utilize appropriate treatment including, postural drainage, expectorants, antibacterial drugs, detergent aerosols and possibly mucolytic enzymes. Sometimes bronchiectasis can be cured by pulmonary resection.

Bronchoscopy has no therapeutic value but the endoscopic and bronchographic pictures of chronic bronchitis may be rather specific. Fur-

thermore bronchoscopic biopsy may become an important diagnostic procedure in this group of diseases.

Management of the patient with advanced, severe and disabling emphysema is a difficult and discouraging task. Because of this difficulty the physician often virtually abandons these unhappy and unfortunate people. While function cannot be restored, further deterioration can be prevented and there is often gratifying relief from other distressing complaints. While the elastic recoil of the lung will never be restored, this can be compensated for in some degree by improving breathing habits, making use of the abdominal muscles to increase intra-abdominal pressure thus elevating the diaphragm and forcing air out of the lung. Other measures to elevate the diaphragm include dietary control to gain in body weight, increasing intra-abdominal pressure.

Any airway obstruction whether due to edema of infection, edema of congestion, edema of irritation or bronchospasm should be eliminated if possible. Airway obstruction due to abnormal secretions may be improved by administration of expectorants and by postural drainage. Unfortunately the obstruction and distortion of air passages produced by fibrosis and atrophy cannot be benefited by any treatment.

The use of aerosols for liquefaction of sputum is often worth a good trial. Success requires that a motorized type of nebulizer be used, either a compressed air pump designed for the purpose or compressed air or oxygen in cylinders. The nebulizer actuated by a hand bulb is not able to provide an adequate amount of aerosol.

Assisted respiration by means of a positive pressure breathing device can have great temporary symptomatic value. There is no evidence that it has any restorative value and some patients seem to derive no benefit whatever. Some of the benefit is due to the simultaneous use of aerosol medications but these may be administered by simpler and less expensive apparatus. Intermittent positive pressure breathing is about the only way carbon dioxide may be excreted when it tends to accumulate excessively as it often does in those with advanced emphysema. The therapeutic effect is only temporary but many patients who have distressing symptoms from carbon dioxide accumulation

are more comfortable when they are able to use positive pressure breathing exercises four or more times daily.

Avoidance of invalidism is important for all. Physical exercise within the limits of tolerance should be encouraged and the sedentary life usually recommended for patients with heart disease should be avoided. Muscles which are accustomed to exercise, well trained and firm in consistency can accomplish a given amount of labor with less consumption of oxygen than in the case of flabby, poorly conditioned musculature. These patients are told that they should train like an athlete. When he is well trained he can run faster and longer with a given amount of oxygen. When the athlete smokes cigarettes or has a cold, when he stays up late at night and is intemperate in his eating and drinking habits, his performance suffers. The emphysema patient should live the life of an athlete in training. Since the leg muscles, the muscles of locomotion, are most important these are exercised systematically and in a few institutions emphysema patients have attempted to develop strong muscles by exercising on a stationary bicycle while breathing oxygen with or without positive pressure. This is impractical for most patients but it is not impractical to attempt to extend one's walking range by counting the blocks and checking the blocks per hour in the manner of an athlete in training.

Little need be said about surgical treatment of the emphysema-bronchitis syndrome which we are considering here. Diffuse disease of this type is not benefited by any of the several surgical procedures which have been proposed. Localized emphysema is an entirely different matter, a different disease. Tracheal fenestration, a procedure designed to facilitate the aspiration

of secretions by means of a catheter introduced through an artificial opening in the cervical trachea might be logical for a small group of patients but the procedure has not become popular and it remains experimental.

The emphysema patient like the cardiac cripple, the diabetic and arthritic must learn a great deal about his disease and, while learning to be his own doctor, must have close communion with a wise and sympathetic physician. Sympathy and encouragement — call it psychotherapy, if you prefer — will contribute greatly to the rehabilitation of the patient with crippled lungs.

SUMMARY

The emphysema-bronchitis syndrome is often recognizable by clinical examination. The disorder is an important cause of disability and death and appears to be increasing in prevalence.

Pre-emphysema bronchitis is often neglected by patients until serious and permanent lung injury has resulted.

Atmospheric irritants; community air pollution, industrial air pollution and personal (tobacco smoking) air pollution are believed to be important causes of bronchitis and its sequel, emphysema.

Treatment is symptomatic, difficult and often life-long. Breathing exercises, intermittent positive pressure breathing, "physical fitness" measures, rigid avoidance of irritants and treatment of infections are helpful but not curative.

REFERENCES

1. State of California, Department of Public Health, Death Records.
2. Stuart-Harris, C. H. and Hanley, T. Chronic bronchitis, emphysema and cor pulmonale. Baltimore (Williams and Wilkins) 1957.
3. Glynn, A. A. and Michaels, L. Bronchial biopsy in chronic bronchitis and asthma. *Thorax* 15: 132 (June) 1960.
4. Gaensler, E. A. and Lindgren, I. Chronic bronchitis as an etiologic factor in obstructive emphysema. *Am. Rev. Resp. Dis.* 80: (Part 2) 185, (July) 1959.

Section on Roentgenology

No Cathode Rays in Nogales

John W. Kennedy, M.D.

In March, 1896 — the month in which the reporter for the "Arizona Gazette" wrote his astute article — Dr. Edward Davis, in Philadelphia, used an X-ray exposure of one-and-one-half hours in order to try to demonstrate a fetus in a pregnant woman. Not only might RUFINO MAVANTE have died from indecision if the X-ray had been employed on him; but if he had survived he might have been the victim of an X-ray burn.

We hope that Dr. Kennedy, who has uncovered a fascinating contribution to Arizona roentgenology, will now explore the possibility of RUFINO MAVANTE'S still being alive. If so, one of the most historically interesting roentgenograms is in the offing.

Surgeons and reporters of today may be more elegant in their work and description thereof but hardly more effective than this report. This is the title of an interesting medical experience related in the Arizona Gazette (Phoenix) March 13, 1896.(1)

It reads in part, "Among the persons indicted by the grand jury yesterday was Juan Cota, of Nogales, for assault with intent to murder. That the indictment was not for murder will always be a wonder to the physicians who remodeled this victim after the encounter was over. The victim, a boy named Rufino Mavante, was a witness before the jury, and though it was only a couple of months since he received a wound from which not one man in 10,000 recovers, he was apparently none the worse. He had been shot in the abdomen. The ball entered on one side and cut obliquely through the intestines. When he didn't die at once, doctors went to work, not with the hope of saving him, but because they thought the bystanders were expecting them to do something. So they merely engaged in that time-destroying occupation known as "soldering," and they felt that it would be relief to the boy and to them when he was dead.

The abdomen was cut open, the mangled intestines were taken out and washed and the gaps and holes were sewed up. The abdominal cavity was washed out, and as nothing else could be done, the intestines were put back and the abdomen sewed up. At least one thing had resulted from the operation — the boy was cleaner inside than he had been before. With nothing else to do, they stood around waiting for Mavante to die. Today he is in rather better health than he was before Cota pulled the trigger of his "45." But then Cota is not given credit for his victim's improved condition, and probably will get a long term in the penitentiary.

"All of this happened a month before the x-ray was discovered. If that recent accession to surgical science had been employed, Mavante would probably have died while they were trying to get a negative of his insides. The Nogales doctors went straight to the root of the trouble, pistol ball, and they followed it like a boy does a ground-hog — by the hole it made in the joint."

The reporter who wrote this interesting account must surely have been doing his home work. This was written in March, 1896, and it was in December, 1895, that Professor

Roentgen had made his preliminary communication to the Wurzburg Physico-Medical Society announcing the description of this "striking new phenomenon." He must have also known something about the time of exposure which was necessary to produce these fascinating x-ray plates.

The medical department of the United States Army reported on the use of the roentgen ray in the war with Spain, 1898.(2) Some interesting technical data is included. There are several reproductions of x-ray plates, and these are diagnostic even by present standards showing bullets in various parts of the anatomy. It is recorded that the exposure time necessary to produce these of the forearm and hand was one to two minutes, of the shoulder and chest ten minutes, of the knee nine minutes, the hip joint, head and pelvis, twenty minutes.

The reporter's statement that "Mavante would probably have died while they were trying to get a negative" is well taken, it would probably have been in the nature of 10 to 20 minutes.

It is probable that "cathode rays did not come to Arizona" before 1898 when Dr. Ancil Martin, of Phoenix, began searching for foreign bodies with a Crookes tube and static machine which he brought to Phoenix.(3)

Dr. Martin reported in 1926 on "Magnetic Foreign Bodies in the Eye," describing 136 cases

which he had studied. He records "the first radiographs in this country were probably recorded by Professor Musterberg of Boston on January 31, 1896. The first removal of a foreign body was by Dr. James Bury, February 11, 1896."(3)

The first eye localization was probably by Dr. Francis Williams of Boston, June 5, 1896. Sweet reported localization by his method, eye cases, November 27, 1898. Dr. Martin continues, "My case number 7 of October 20, 1901, was my first attempt to localize a foreign body within the globe, a fluoroscope was used. Extraction was made by a magnet using the posterior route. Incidentally I will say I brought the first Crookes tube to Arizona, and with the assistance of an electrician, hooked it up to an old static machine but it was of little service. The localizations done prior to 1910 were performed with a static machine brought to Phoenix in 1898." Dr. Martin stated his first observations on intra-ocular foreign bodies was in 1896, and as stated above he did his first localization with the aid of x-ray on October 20, 1901.

These few hundred words notwithstanding, there were "no cathode rays in Nogales" when Juan Cota fired his "45" at Ruffino Mavante.

1. Library and Archives, Capitol Building, Phoenix, Arizona.

2. Borden, W. C., *The Use of Roentgen Ray in the War with Spain, (1898)*. Document No. 729, Government Printing Office, 1900.

3. Martin, Ancil, "Magnetic Foreign Bodies of the Eye," *Southwest Medicine X*, No. 4, pp. 151-161, 1926.

Survival in a Thermonuclear War

Solomon Garb, M.D.

This issue of ARIZONA MEDICINE introduces a series of articles by Solomon Garb, M.D., entitled: "Survival in a Thermonuclear War." Dr. Garb is the Missouri Secretary for Medical Education for National Defense (MEND) and is Associate Professor of Pharmacology at the University of Missouri. Dr. Garb's work has been reviewed by the Civil Defense Committee of the Arizona State Medical Association, Inc., and is considered accurate and practical.

In the first paper, "The Need for Action," nearly all objections and misconceptions regarding Civil Defense are enumerated in a literary and philosophical fashion. The remaining major problem of possibly "shooting your neighbor" is well reviewed in "Ethics at the Shelter Door," McHugh, S.J., America: 9,29,61. However, true "Love of thy neighbor" in 1962 may well lie in active support of large community and school shelter areas.

The question regarding the futility of a shelter during sleep hours may be finally solved by the National Emergency Alarm Reaction (N.E.A.R.) System, wherein a small audible alarm box will be installed in the master bedroom electrical outlet of each home. This device is now in active production, and Arizona has been selected as one of ten states for its pilot application. When this system has been fully integrated in our electrical utility power chain, a nation-wide alarm will be able to be initiated within one minute's time.

In "The Effects of Hydrogen Bombs," Dr. Garb emphasizes that fallout radiation will be the cause of death in 91 to 96 per cent of all fatalities — therefore, the prime need for both knowledge of the effects of radiation and construction of community shelters. During a recent visit, Dr. Garb carefully evaluated the type of home construction and the home area density of Phoenix and stated that firestorm would not be a major Arizona problem.

In "Important Aspects of Nuclear Radiation," a classification of the varied types of radiation is followed by a comparison of the materials available for protection. The vital "half-life" time factor of rapid diminution in radiation danger is reviewed.

Dr. Garb's initial work, "The Physician in Civil Defense," has been sent to every medical doctor in Arizona. This present series, based partially on that fine work, has been completely revised and is strongly recommended again both for its detailed factual content and for its extreme PRACTICAL value.

THE NEED FOR ACTION

The problem of survival, both individual and national, in a thermonuclear war is becoming daily more acute. There are arguments over who has the responsibility for protection of the civilian population. Some say the Federal government, others the state and local governments, and still others would have the individual citizen assume the primary responsibility. This controversy has a disturbing parallel to the controversy between the Army and the Navy as to who was responsible for the protection of Pearl Harbor.

This series of articles is not designed to settle the question as to who is responsible primarily for protection of the civilian population. However, it is hoped that by explaining the important facts this series can help generate an informed public opinion. The important information is not secret, but it is so scattered through scores of government and private publications that it is unlikely that many persons will have the time to dig out the material. In a sense, then, this series will serve a function similar to that of a review article.

It is particularly appropriate that the medical profession be well informed about problems of survival and civil defense. Obviously, physicians will assume command of efforts to save as many lives as possible and therefore should understand the forces with which they will be dealing. There are also other reasons. Of all groups in the population, physicians best understand the importance of prevention of morbidity. By education and experience they can also comprehend more readily some of the more technical aspects of the problem. Furthermore, as respected members of their communities they can provide advice and example which will carry great weight. Finally, there is perhaps the most compelling reason — there is no other group which can exert the necessary leadership.

No attempt will be made to discuss the purely medical and surgical aspects of survival, such as triage, since these have been amply covered elsewhere. We will consider the effects of thermonuclear bombs, the ways in which to minimize these effects, and related material. Some readers may use the information as a guide for

building a shelter for their own families. Others may find it helpful for clarifying their thinking about government participation in a national shelter program. Still others may use it within their own communities. It is less important who protects the American people than it is that it be done properly, and in time.

The American public is the primary culprit in our present state of civilian unpreparedness. There has been an apathy — even hostility — to civil defense matters. It seems as if the American public is unwilling to turn from its pursuit of pleasure and status to face the grim realities of a possible war. Such attitudes are not new. They led to the fall of the Roman Empire as well as to the fall of other civilizations. Fortunately, it isn't necessary to convince everyone of the need for action. If a substantial minority of the thinking citizens are convinced, they would tip the scales.

Some Widely Held Misconceptions. — To understand the situation clearly, it is advisable first to clear up some of the widely held misconceptions about hydrogen bomb warfare and protective measures. It is necessary that physicians understand these attitudes so that they may more readily combat them.

Can we run away from the bombs? — Some people believe that it is practical to try to escape death from a hydrogen bomb by fleeing the big cities and "going to the hills." This is an error the roots of which lie in the early civil defense planning against atom bomb attacks. The atom bomb produced most of its casualties by blast, heat, and direct radiation from the fireball. Radioactive fallout was not a significant factor. However, with a hydrogen bomb, radioactive fallout is potentially the most deadly effect, and in the absence of proper shelter can kill over an area between 100 and 1,000 times greater than the area of lethal blast. Adequate shelter against fallout is not available along roads and cannot be constructed in a short time. In the event that the United States is attacked, the probability is that the radioactive fallout will cover almost the entire country, so that no area would be safe without proper shelter. People who are in automobiles when the fallout descends will have practically no chance for survival.

This conclusion is derived to a large extent from some simple calculations based on the known facts about hydrogen bombs which will

EDITOR'S NOTE: These civil Defense articles are revisions of the original articles that appeared in the New York Journal of Medicine and Missouri Medicine. Revisions completed by Dr. Solomon Garb in March, 1962 and are now being reproduced in Missouri Medicine and Arizona Medicine simultaneously.

Original Articles

be discussed in great detail in the next article. It is also based on House Report No. 2946, 84th Congress, 2nd Session, July 27, 1956, and later reports. These reports were made by the Military Operations Subcommittee after careful analysis of all the available information on hydrogen bombs. It should be noted that the congressmen submitting the report have had wide experience in evaluating military operations and are neither hysterical nor easily fooled. They point out that with large yield weapons the value of dispersal without shelter drops to zero.

Are civil defense measures useless in the face of hydrogen bombs? — The dreadful arithmetic of hydrogen bomb casualties apparently stuns many persons, and elicits an attitude of "It's no use." This attitude must be analyzed and combated. It has been stated that an enemy attack on the United States as it is today would kill about 70 million Americans. Shelters would reduce this fatality rate considerably; not more than 35 million would die if we had adequate shelters, and the death toll might go as low as 5 million. Unfortunately, few people can grasp the real significance of these figures. They take the attitude that 35 or 5 million deaths are practically the same as 70 million, and that protective measures are of little value. However, our attention should be focused on the number of people who can be saved, not on those who cannot. A realistic appraisal shows that a shelter program would save 35 to 65 million lives. Surely this is a worth-while objective.

This principle is, of course, familiar to all physicians. If the death rate from some disease is high, physicians do not therefore abandon or diminish their efforts to save as many lives as is possible.

A frequent argument is that since hydrogen bomb warfare, even with shelters, would kill millions of people, all our efforts should be directed toward preventing future wars, and shelters should be ignored. This argument, however, misses the point. Building shelters and trying to prevent war are not in any way mutually exclusive. Of course we should try to avoid wars. Shelters do not in any way threaten other nations, so there is no reason why efforts to avoid war would be impeded by having shelters.

A corollary argument, which is sometimes

heard, is that the energy which we place into building shelters should be directed toward preventing war. This, of course, sounds good at first. But, how are we to convert the energy? If a man is about to build a shelter in his basement, how can he go about changing his muscular work, changing the wood and concrete that he is going to use, into a force for preventing war? He could, of course, spend his time writing letters to American leaders, saying he wants peace. However, our leaders already know that we want peace, and they also want peace. We are not the ones who want war. Will it do any good to spend the time writing letters to the Russian leaders saying that we want peace? Inasmuch as the Russian people are known to want peace, and inasmuch as the Russian leaders generally ignore their own peoples' wishes, it hardly seems likely that a flood of letters from Americans to Russia would do any good. Unfortunately, there is no clear way in which the average person can change the energy and effort which will be used for Civil Defense, into efforts to promote peace.

Some people fear that a thermonuclear war would eventually kill all life on earth and therefore feel that shelters would be useless anyway. This fear has been increased by the recent motion picture, "On the Beach." However, it must be remembered that motion pictures are flights of fancy, not scientific evidence. Those who have seriously studied the problem have come to the conclusion that although conditions may be stark, man will survive. Not only American(1) but also Russian(2) students of the problem have come to this conclusion.

There are persons who contend that shelters will do little good since at the end of a two week stay in the shelter, when one comes out, one will be killed by the radioactivity anyway. This misconception is also based on some incorrect moving pictures, and novels. Actually radioactivity levels fall very rapidly so that the main protection is needed for a relatively short time only. Of the total amount of radioactivity given off in an area in a ten year period from a bomb, more than half will be given off during the first seven hours. In other words, protection during the first seven hours is more important than protection for the next ten years, assuming a fallout from a single bomb. During the first forty-eight hours, approximately sixty-

five percent of the total radiation will be delivered to any area. Thus, even if one is in an area where the initial fallout radiation levels are enormous — enough to kill within six minutes — it will be possible to come out of a shelter in that area in two weeks because the radiation will have fallen to a much lower level.

Is instantaneous death preferable to survival in a devastated country? — At times, in discussions of the value of shelters, some people say they would prefer to perish instantaneously in the flash of the bomb, without knowing what has happened, rather than to live in a world in which civilization and culture are destroyed. This attitude is based on several misconceptions. To be sure, people within a mile of ground zero will probably be killed within a fraction of a second. However, for every person killed so mercifully, between 100 and 1,000 will die a lingering death from radioactive fallout unless they have adequate shelter. Furthermore, if really faced with a concrete choice it is doubtful that many would actually prefer death to life, even in a vastly changed world. Physicians have had considerable experience with the intensity of the “will to live.”

There is another aspect to consider. Let us assume that those who say they would prefer not to live after another war still feel that way when the chips are down. Do they then have the right to condemn not only themselves but their children and unborn descendants as well? It is quite likely that life will be bitter for two, perhaps three generations after a war. But the decision to die will involve the destiny of thousands of generations. Can anyone be sure that in five or ten generations life would not become more normal?

These questions have arisen before and have been answered. The Bible gives us some valuable examples. Consider the Israelites in Egypt. For generations they were enslaved. Their lives were as bitter as any we can imagine in a postwar world. They could have given up, said that life wasn't worth living, and died off. If they had, Moses, Isaiah, Peter, Mary, and Jesus would never have been born. Fortunately, however, the Israelite slaves had the courage to survive. We must find the same courage, even after a possible disastrous war.

Are the dangers of a hydrogen bomb attack exaggerated? — Obviously, no one can predict

whether or not an attack will come. However, it certainly is better to have defenses that are not needed than to need defenses which we do not have. Construction of shelters does not imply pessimism, but it does mean a realistic appraisal of the existing dangers. The risks of a hydrogen bomb attack do not have to be overwhelming to justify a shelter program. As long as the risks are substantial they call for protection of our population.

Some people believe that the United States government has a great deal of secret information not available to the ordinary citizen and that if there were a real need for special shelters the government would provide them. This belief at first seems reasonable and logical. However, we must realize that the American government is not a dictatorship, and that there are many problems involved before an administration, no matter how capable, or how wise, can undertake an extensive new program. Many congressmen are more concerned with budget balancing, with taxation levels and with pork barreling than they are with the realities of the current situation. Furthermore, even if there were unanimous agreement in the government about the Federal role in Civil Defense, a program of national shelters would take a long time to complete. One cannot dig millions of excavations, and pour billions of tons of concrete overnight. It appears likely that there will eventually be a considerable government shelter program. However, the emergency may be upon us long before it is completed.

Is our retaliatory force so strong as to make an attack on us unthinkable? — This question has been studied in detail by Brodie.⁽³⁾ He points out that “So long as there is a great advantage in striking first, and under existing conditions the advantage would be tremendous, we must realize that even rational men could start a total war, and irrational ones would need no such justification.” He also states, “The strategy of deterrence ought always to envisage the possibility of deterrence failing.”⁽⁴⁾

The congressional committee investigating this problem has reached similar conclusions. They believe that we cannot rely on the good judgment of a potential enemy “any more than we can rely on their professional peaceful intentions.”

Original Articles

Are shelters "unrealistic" in the face of the shortened warning times from the intercontinental ballistic missiles? — This attitude is rather widely held. It is seen in certain publications, and has even been expressed by a United States senator. It is incorrect.

It is true that an I.C.B.M. can reach the United States in fifteen to twenty minutes. At best, we could expect a fifteen-minute warning before its explosion. Although even a fifteen-minute warning would help save many lives, it would certainly fail to help others. However, shelters will be lifesavers even if there is no warning whatever. Admittedly, in a complete surprise attack, shelters will not be able to protect against blast, initial fireball radiation, or heat radiation, since no one will have time to get to a shelter before these effects occur.

However, the shelter will protect against radioactive fallout even in a complete surprise attack, and this fallout constitutes about 96 per cent of the danger from the bomb. There will always be a warning time before radioactive fallout. The bomb flash itself constitutes the warning. This flash will be visible for hundreds of miles and cannot be mistaken for anything else in human experience. At a distance of 100 miles, the sky will become more than 10 times as bright as at noon on the brightest day, and the brightness will last for almost one minute. After the flash, there will be an interval of one-half to ten hours before the fallout descends, depending on the distance and the wind velocity. This interval should be enough to allow most people to reach a shelter — if there are shelters to reach. Thus, it should be clear that the I.C.B.M. does not make shelters obsolete; it makes them essential.

Are shelters too costly? — Shelters vary in cost. In a later article, the costs will be discussed in detail. In general, it will be shown that an excellent family shelter can be provided at a cost of \$150 to \$200 per person. A shelter for an average family would cost less than the shelters now used for the family car. Community shelters would cost much less.

Are civil defense programs inspired by "do-gooders?" — The answer to this question depends on the definition of "do-gooder." Civil defense programs are supported by President Kennedy, governors, leading military personages, scientists

like Edward Teller, and the medical profession.

Are civil defense programs "defeatist" or "cowardly?" — Oddly enough, there are persons who consider protective measures to be cowardly. They are usually people who have had little experience with war or death. Essentially, they are covering up their own anxiety by trying to put on a bold front. Their attitude is akin to the patient who refuses to see a doctor when he has symptoms suggesting cancer. He fears that the doctor might find cancer. Similarly, the objector to civil defense programs is usually afraid to face the reality of the current situation. It has been said that those who haven't the courage to face the possibility of thermonuclear war are not likely to find the courage to cope with that war if it comes.

Clearly, it is no more cowardly to construct a shelter than to be vaccinated against smallpox or to stop for red traffic lights.

What good would the shelter be if I am asleep, or downtown when the bomb explodes? — The flash of the bomb will awaken the soundest sleeper 100 miles away. There should also be shelters in downtown areas for people who cannot get home before the probable descent of fallout.

EFFECT ON NATIONAL SURVIVAL

Thus far, the need for shelters has been discussed from the standpoint of family survival. However, another aspect at least as important is also involved. If enough individual shelters are built, they may prevent an attack. A potential enemy is more likely to attack if he believes he can completely destroy us in one day with a relatively small number of weapons. He may even be willing to allow millions of his own countrymen to die in our retaliatory attacks if he can be sure of destroying us. However, if he cannot be sure of our destruction he may, at the crucial time, decide not to risk all-out war. Properly constructed and equipped shelters will make it vitally impossible for any enemy to destroy us completely. The details are presented in the following articles in the series. In summary, they show clearly that if enough good shelters are built, the deadly effects of the hydrogen bomb will be reduced to almost one thousandth of the effects without shelters. The shelter not only protects the civilian population; it reduces the likelihood of an attack to some extent.

THE EFFECTS OF HYDROGEN BOMBS

To evaluate the effectiveness of any proposed defensive measures, we must know something about the offensive weapons which may be used and the possible methods of delivering them. This problem at first seems complex since there are so many possible variables. For example, bombs range in size from 1 kiloton (1,000 ton T.N.T. equivalent) to 20 megatons (20,000,000 ton T.N.T. equivalent). Each bomb produces a somewhat different pattern of destruction depending on the height at which it explodes. There may be bursts beneath the earth's surface, at the surface, high in the air, or under water. Bombs can be delivered by plane, ship, or intercontinental ballistic missiles. There may or may not be any warning before the bombs explode.

In the face of all these possibilities, it is understandable that many people become confused about the entire situation. Nevertheless, it is possible to simplify the problem so as to be able to plan defensive measures intelligently. Fundamentally, this involves preparing for the worst while hoping for the best. Thus, the assumptions which will be made are based on the concept that if we are attacked, the enemy will use his maximum power and that all his missiles and bombs will perform perfectly. If, as seems quite possible, the enemy's efficiency is less than perfect our defensive measures will be even more effective than was planned.

The first assumption is that if war comes there will be no humanitarian deterrent. An enemy can be expected to try to destroy us as quickly as possible. It follows that unless protective measures are taken, radioactive fallout would be the major cause of death. Radioactive fallout can kill about 100 times as many people as can the other effects of the bomb. Furthermore, contrary to some reports, there would be no substantial danger to any enemy from distant fallout, that is, a fallout from a bomb explosion in America. Thus, it is foolish to hope that they will use "clean" hydrogen bombs.

The second assumption is that the enemy will use his large bombs. Therefore, we must prepare for attacks with 20 megaton bombs. It may be that smaller ones will be used. In that event, our protective measures will be more effective. It

is unlikely that weapons larger than 20 megatons will be used despite the threats about 100 megaton bombs. A law of diminishing returns applies, and beyond the 20 megaton size there is little added destruction. Most of the extra force is wasted in the air. Thus, two 20 megaton bombs would cause much more destruction than a 40 or even a 60 megaton bomb.

The third assumption is that the enemy will try to deliver his bombs with the greatest surprise and least possible warning (remember Pearl Harbor). If bombs are used, we may expect at least a one-hour warning. If intercontinental ballistic missiles are used, the warning period may not exist, or if it does, it may be very short, certainly not more than fifteen minutes. It is encouraging to read that the American government is working on a radar system which will give some warning of approaching missiles. Even a five-minute warning would be quite helpful. However, it is not possible at this time to make any definite assumptions about whether or not there will be any warning at all. Therefore, the benefits of defensive measures which will be discussed in a later article will be considered under two headings: Effectiveness with some warning, and effectiveness in the absence of warning.

The dangerous effects of a thermonuclear weapon can be considered under several headings: (6)

1. Initial nuclear radiation from the fireball.
2. Initial heat radiation.
3. Firestorm following initial heat radiation.
4. Blast effect.
5. Flying missiles secondary to blast.
6. Radiation from fallout.

In Table I, the radius and area of these effects are listed. It will be shown that adequate precautions can reduce the dangers appreciably.

It is important to consider each of these effects singly to understand the significance and importance, as well as the limitations, of defense measures.

The zone of absolute destruction which extends up to 1 mile from ground zero, depending on the soil structure, includes the crater and the disrupted soil immediately around it. No prac-

TABLE I
LETHAL EFFECTS OF 20 MEGATON BOMB

Effect	Ground Burst No Shelter	
	Probable Lethal Radius in miles	Probable Lethal Area in Square Miles
Crater	0.35	
Absolute destruction of underground shelter	1.0	3.14
Initial nuclear radiation	2.5	20.0
Blast effects	10.0	314.0
Flying missiles	10.0	314.0
Initial heat radiation	12.0	452.0
Firestorm*	Up to 20	1,250.0
Radioactive fallout	140 (oval)	10,000 to 20,000

*This effect is unpredictable

tical defense measures exist in this zone, and any person within the area will probably die within a fraction of a second. The area of about 3 square miles represents the limitation of all practical defense measures. However, this is a comparatively small area, less than 1 millionth the area of the United States.

The initial nuclear radiation from the fireball consists mainly of neutrons and very high energy gamma rays. These are far more penetrating even than the gamma rays from fallout. Ordinary shelters do not protect against these rays within the 2.5 mile radius. For reasonable protection, about 6 feet of earth or 3½ feet of concrete are needed. In some cases, shelters of this nature can be built at a very small increase in cost over that of the ordinary shelter.

The blast wave and flying missiles will destroy almost all conventional frame houses up to 10 miles away. Reinforced concrete buildings may remain standing even up to 5 miles of ground zero. Underground shelters give a variable degree of protection against blast, depending on their design. Those designed only for fallout may be only slightly stronger than a frame house. Those designed to resist blast are, of course, stronger. It is helpful to think of blast effects in terms of pounds per square inch of overpressure. One pound per square inch equals 144 pounds per square foot. As a basis of comparison, the floors of homes are designed to withstand pressures of 40 pounds per square foot (0.28 pounds per square inch). In shelter design, the ranges of blast overpressures extend up to 100 pounds per square inch.

The initial heat radiation from the fireball

is released in 2 separate pulses within a period of a few seconds. This heat is in the neighborhood of millions of degrees in the fireball center and falls off rapidly. Its importance would depend on many factors, including the clarity of the air, the time of year, the presence of buildings, and so forth. In theory, the heat radiation on a clear day could burn fatally a nude person at a distance of more than 20 miles. However, cloudiness would reduce its intensity, and, of course, clothing gives excellent protection, as does a building between the person and the fireball.

The initial heat radiation also can produce a firestorm, which is a fire raging over a wide area of a city, at least 1 square mile, with the air so hot that everything combustible in the area begins to burn even before directly touched by flame. During a firestorm a large area acts as if it were a fireplace. From all sides air rushes in with gale force and speed. This air is heated in the fire and rises in a column over the burning area. The air temperature on the streets may reach 1,400°F. (the maximum temperature in an ordinary oven is 500°F.) In addition to the intense heat, there is a shortage of oxygen in the entire area, and a lethal concentration of carbon monoxide. Firestorms are usually over within six hours. There is one hopeful aspect of firestorms, however. Once established, they do not spread to other areas. The reason is that the winds, usually 50 miles an hour and more, blow from outside the firestorm area toward its center.

Firestorms were produced in Hamburg in 1943 and in several Japanese cities.(7) One firestorm in Hamburg killed 60,000 people. As yet, all the factors involved in the production of a firestorm are not known. Humidity, prevailing winds, and terrain all probably play a role. It is not possible to state that a firestorm will occur in any particular area if multiple fires start. On the other hand, we do know that firestorms will not occur unless buildings are fairly close together. If less than 20 per cent of an area is under roof, firestorms will not occur. Thus, most suburban, and all rural areas, will be safe from firestorm unless they contain dry vegetation.

Ordinary shelters do not provide protection from firestorm. If deep enough underground, they might keep the occupants safe from the heat above. However, special measures would be needed to provide oxygen and to protect

against carbon monoxide poisoning. The only feasible method of overcoming this problem appears to be the storage within the shelter of a compressed oxygen supply adequate for six hours (the usual duration of a firestorm). One large cylinder of oxygen can supply 5 people for over six hours if the exhaled carbon dioxide is absorbed. When apparatus for protection against firestorm is available, it can be fitted into existing shelters.

Although firestorms are frightening things, we must keep them in perspective. Firestorms may not follow a hydrogen bomb explosion. Even if they do, they are relatively restricted in area. A firestorm can kill 60,000 or even 600,000 people. However, it cannot compare in deadliness with radioactive fallout from a single bomb which could easily kill 6,000,000 to 12,000,000 people. In a subsequent chapter, protection against firestorms will be considered.

The greatest hazard from hydrogen bombs comes from the radioactive fallout. The explosion of a bomb sucks up millions of tons of earth which become radioactive. This material is carried for varying distances by the winds in the stratosphere until it falls to earth. The heavier the particle, the sooner it falls to earth. The fallout pattern usually has the shape of a fat cigar. The area of fallout is not completely predictable since the stratospheric winds may not have the same direction as the ground-level winds.

The fallout from a 20 megaton bomb extends many hundreds of miles beyond ground zero. However, the most intense fallout usually extends to about 140 or 150 miles from ground zero. Ordinarily, within the fallout pattern, the fallout radiation intensity is greater near ground zero.

Persons who are 140 miles or less from the explosion site, and in the cigar-shaped pattern, will probably receive a lethal dose of fallout unless they have some shelter. However, a relatively small degree of shelter, such as an ordinary basement, can save the lives of most of them. On the other hand, in areas closer to ground zero, ordinary basements provide inadequate shelter. Thus, people living about 50 miles from the center of the explosion in the cigar pattern will probably receive a lethal dose of radiation from fallout even if they remain in an ordinary basement.

Accordingly, it should be clear that radiation fallout constitutes the major hazard of a hydrogen bomb, and, furthermore, that is a far greater hazard than all the others combined. It is important to consider just how great this hazard really is. Let us assume that people are equally distributed within the 15,000 square mile area of lethal fallout and have no shelters at all. Less than 1 per cent will be killed within the zone of absolute destruction. Less than 1 per cent will be killed by initial nuclear radiation. Approximately 2 per cent will be killed by blast and flying missiles. An additional 1 per cent might die of initial heat radiation, and, if a firestorm occurs, perhaps an added 5 per cent would die. The remaining people, between 91 per cent and 96 per cent, will die of fallout radiation.

As another example, let us assume that everyone has a good basement and stays in it. This will reduce the deaths from radiation fallout considerably, perhaps to as low as 30 per cent. Even so, many more persons will die of radiation fallout than of all the other effects combined.

Fortunately, simple shelters can give excellent protection against fallout.

TABLE II
RELATIONSHIP OF BOMB SIZE TO THEORETIC
RANGE AND AREA OF EFFECTS

Bomb Size (Megatons)	Radius of Effect in Arbitrary Units	Area of Effect in Arbitrary Units
100	4.64	21.53*
20	2.71	7.34
10	2.15	4.62
5	1.71	2.92
2	1.26	1.59
1	1.00	1.00

This table may be used to estimate effects of a bomb of a size other than that listed in Table I. For example, if we wish to estimate the probable lethal radius of the blast from a 2 megaton bomb, knowing that a 20 megaton bomb has a 10 mile radius, we use the proportion

$$\frac{2.71}{1.26} = \frac{10}{x}$$

Thus, the probable lethal radius of blast from a 2 megaton bomb (no shelter) is 4.65 miles.

*Applicable to a flat surface, reduced because of earth curvature.

It may also be of interest to consider the relationship of bomb size to the range of its lethal effects. Some missiles are designed for bombs smaller than 20 megatons. The radius of any effect of a bomb is proportional to the

Original Articles

cube root of its explosive power in megatons. The area of its effect is proportional to the square of the cube root. In Table II, a comparison of different size bombs is presented.

These theoretic figures are not completely accurate, since they are based on effects on a flat, regular surface. Since the earth is curved, there is a more rapid falling-off of effectiveness with the larger bombs. From the standpoint of strict military effectiveness, there is no appreciable advantage in going over a 20 megaton weapon. The only apparent purpose in such things as 100 megaton weapons is psychologic — that is, the attempt to frighten a civilian population into surrender or into disorganized panic. Even the incendiary potential of a 100 megaton bomb is less than that of 5-20 megaton ones.

There are also important indirect effects of hydrogen bomb attacks. It is obvious that most of the ordinary activities of the country will come to a temporary halt. This includes the production and distribution of food. The Federal Civil Defense Administration advises that a seven- to fourteen-day food supply be kept for emergencies. This amount may be completely inadequate. Unless much larger amounts of food are stored, many survivors of the attack will probably die of slow starvation. All standing

crops will probably be destroyed or so contaminated as to be useless. Farmers are unlikely to start farming until the radioactivity of their fields has fallen to safe limits. Most farm animals will be dead.(8,9)

It is true that we have in this country over 2 billion bushels of surplus grains, equal to several years supply for the population. The administration has made plans to have this grain stored near the large population centers which would be subject to enemy attack. However, although planned, apparently a considerable period of time will lapse before this movement can be carried out, for various reasons which need not be considered here. Furthermore, even when that stored grain is properly distributed around target centers, it will be enough mainly to prevent death from starvation. It will not be enough to maintain a family in the best possible nutritional status. As the situation stands, at the time of the writing of this article, there are inadequate food stocks in the general areas of target cities, and unless individual families make proper and prudent efforts to store their own emergency food, starvation will become a major cause of death. Fortunately, it is relatively simple, and relatively inexpensive, to store adequate amounts of food in safety. The details will be discussed in a subsequent chapter.

IMPORTANT ASPECTS OF NUCLEAR RADIATION

This article will have to be restricted to those minimum aspects which must be understood to plan intelligently for personal and family survival.

TYPES OF RADIATION

The types of radiation with which we are concerned are alpha particles, beta particles, gamma rays, and neutrons.

Alpha Particles. — Alpha particles are identical to the nuclei of helium atoms. They have a relatively high mass and charge and very poor powers of penetration. Probably a few inches of air, a layer of clothing, or even the outer horny layer of skin can stop them. Therefore, alpha particles from outside the body itself

present no hazard. However, if enough material which emits alpha particles should be swallowed or inhaled, the particles could cause serious internal damage and sometimes even death. The ordinary Geiger counters and radiation survey meters do not pick up alpha particles. Special instruments are needed for this purpose.

Beta Particles. — Beta particles are the same as electrons. They are somewhat more penetrating than alpha particles. They cannot cause damage at a distance, but if they come from materials on the skin they can cause serious burns. Like alpha particles, they are most dangerous if emitted internally from radioactive material which has been swallowed or inhaled. Some Geiger counters have so-called "beta win-

dows” which enable them to measure beta activity.

Gamma Rays. — Gamma rays are related to x-rays but much more penetrating. They can travel for miles through the air and through several feet of most materials. They can kill even if the material emitting them is some distance away. They can be picked up and counted by counters and various radiation survey meters.

Gamma rays are so much more powerful and more penetrating than the X-rays with which doctors are familiar, that one must guard against mistaken comparisons. The ordinary lead apron which is used by physicians to protect against X-rays during diagnostic procedures, offers practically no measurable protection against fallout gamma rays. Indeed, to get a protection factor of even 2, from lead, requires a thickness of about a third of an inch, and the minimum protection factor needed to have a good chance of survival is 100. For the same reason, special suits to protect personnel against radioactive fallout are not practical. They can keep the particles from getting on the skin. However, unless such suits contained a thickness of about 2 inches of lead, they could not stop enough of the gamma rays from penetrating.

Neutrons. — Neutrons are particles found in atomic nuclei and have no electric charge. Because of this, they can penetrate many materials. When they hit nuclei of certain atoms they can knock out other neutrons just as a billiard ball can transmit its energy to another billiard ball. As a result, even a thick layer of steel may not give good protection against neutrons. However, damp earth and concrete, because of their content of water, will protect. The exact mechanism is complex and need not be described here. It is discussed in detail by Glasstone(6). Neutrons are not picked up by ordinary radiation detection instruments.

SOME COMMONLY USED MEASURING UNITS

The Roentgen and the Milliroentgen. — A commonly used measuring unit is the roentgen, often abbreviated to r. We need not define the roentgen here. In many cases a smaller unit than the roentgen is needed, and the milliroentgen, or Milli-r, is used. It is 1/1000 of a roentgen. At times other terms are used. They include, rep, rad, and rem. It is not important to consider

the differences in meaning between these, since, for practical civil defense purposes, the terms roentgen, rep, rad and rem refer to the same amount of gamma radiation. However, these terms are not interchangeable, when discussing Alpha particles, Beta particles, or neutrons. When a radioactive material emits radiation, it changes, or “decays” into another material.

The time taken to decay to one-half of the original mass is called the half-life. If a material has a half-life of one day, only one-half of it will remain at the end of the first day, one-fourth at the end of the second day, one-eighth at the end of the third day, one sixteenth at the end of the fourth day, and so forth. Half-lives may vary from about one millionth of a second to thousands of years. Fortunately, in most cases, the elements which produce large amounts of radiation have a short half-life so that they only present a serious threat for a relatively short time.

For practical civil defense purposes, it is sufficient to remember that the radioactivity from fallout decays to one-tenth of its previous level with every sevenfold increase in elapsed time. The base is customarily the radiation level at one hour after explosion. Thus, if the radiation level at one hour is at the rate of 1,000 r per hour, its level at later times will be as follows:

Elapsed Time	Radiation Rate (r Per Hour)
1 hour	1,000
7 hours	100
49 hours (2 days)	10
343 hours (2 weeks)	1
14 weeks	0.1

This emphasizes the importance of protection during the first two days.

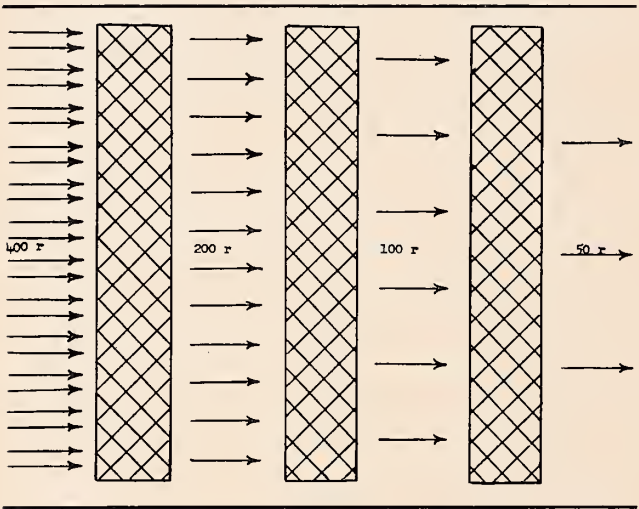
The total life of a ray on earth is a very small fraction of a second. On the other hand, a radioactive particle may remain radioactive for appreciable periods of time. The distinction between a ray and a radioactive particle must be kept in mind clearly at all times. A radioactive particle can be thought of as being a small X-ray machine. The radioactive particle itself does no damage — the rays which it gives off does the damage. It is relatively simple to keep radioactive particles away from us. Any measure

Original Articles

which will keep ordinary sand away will keep more than 99% of radioactive particles away. However, it is much more difficult to keep the rays away since they have an extraordinary penetrating power.

Our present knowledge of the dangerous effects of radiation is incomplete but should be fairly reliable as a general guide.

A total body dosage of less than 50 r will probably have little noticeable effect. With a dose of between 50 and 250 r there will be some radiation sickness but no deaths. As the dose increases beyond 250 r deaths will increase in frequency, and at about 450 r, half of those exposed will die within one month. At about 750 r, almost all those exposed will die.



Those who receive doses of over 200 r but survive will be sick and weak for long periods of time. Although an acute dose of radiation is somewhat more dangerous than prolonged chronic exposure, all exposures are cumulative for a lifetime. Thus, if a person received 30 r each week to his entire body, he would probably die within one and a half to two years.

Protection against external radiation can be accomplished by interposing sufficient material between the radioactive source and the person. In general, the ability of materials to reduce the passage of gamma rays depends on the mass of the material. The heavier the material, the better the protection. Usually, the degree of protection for a particular type of ray is given in terms of a half-thickness. For example, if the half-thickness of a material for fallout gamma rays is 1 inch, then a 1-inch thickness reduces the radiation to one-half, 2 inches to one-fourth, 3 inches to one-eighth, 4 inches to one-sixteenth,

5 inches to one-thirty-secondth, and so forth (Fig. 1). The half-thickness of materials suitable for bomb shelters is given in Table III.

In general, one may assume that a pound of any material will give approximately the same protection from gamma rays as a pound of any other material. Although not strictly accurate, this approximation is close enough for all practical purposes.

Protection against radiation from inhaled or swallowed radioactive material can be obtained only by keeping such inhalation or swallowing to an absolute minimum.

In addition to the direct hazards of radiation there is the indirect hazard of injuring the germ cells so that future generations will bear congenital defects. Here our knowledge is extremely limited. It is believed that the risk is directly related to the amount of exposure, and that the amounts of radiation which do not cause illness can injure generations yet unborn. For this reason, it is advisable to avoid exposures as much as possible, even if the risk of death has passed.

TABLE III
MATERIALS NEEDED TO REDUCE THE
AMOUNT OF RADIOACTIVITY FROM FALLOUT
APPROXIMATE THICKNESS IN INCHES

Substance	Reduction to One Half	Reduction to One Thousandth
Lead	0.35	2.5
Steel	0.7	6.7
Concrete	2.2	23
Packed Earth	3.3	36
Crushed Rock	3.3	36
Water	4.8	50
Full Cartons of Canned Food	7.0	75
Wood	8.8	90

REFERENCE

1. Joint Committee on Atomic Energy, Congress of the United States: Biological and Environmental Effects of Nuclear War, Summary, Analysis of Hearings, June 22-26, 1959, p. 8.
2. Garthoff, R. L.: The Soviet Image of Future War, Washington, D. C., Public Affairs Press, 1959.
3. Brodie, B.: Strategy in the Missile Age, Princeton, Princeton University Press, 1959, p. 230.
4. Idem: Ibid., p. 292.
5. Idem: Ibid., p. 297.
6. Glasstone, S.: The Effects of Nuclear Weapons, Washington, D. C., U. S. Atomic Energy Commission, 1957.
7. Enloe, C. F.: Nature of air raid casualties, in Medical Aspects of Civil Defense, Chicago, American Medical Association, p. 95.
8. Reitemeier, R. F., and Menzel, R. G.: Effects of a Nuclear Attack on Soils and Crops (TID-5562), Washington, D. C., U. S. Atomic Energy Commission, 1959.
9. Subcommittee of the Committee on Government Operations: Hearings on New Civil Defense Legislation, Washington, D. C., U. S. Government Printing Office, 1957, p. 333.

skeletal
muscle
spasm is

tractable

with *Trancopal*[®]
brand of chlormezanone

Low back pain and other skeletal muscle spasms are tractable disorders when you treat them with Trancopal, the relaxant that quickly eases the spasm and gets the muscle moving. You have a more tractable patient with Trancopal, too—its mild tranquilizing action makes him less irritable, better able to bear his discomfort, more willing to cooperate in physiotherapy.

These two complementary actions of Trancopal are commented on in many recent reports; e.g., Kearney¹ states: "...Trancopal has proven to be an extremely effective striated muscle relaxant and subcortical tranquilizer." Cornbleet,² discussing the use of Trancopal in dermatologic practice, comments: "Noteworthy was the soothing effect of chlormezanone without interference with normal activities or alertness...Patients were found more tractable and easier to control."

Marks³ found that in patients with backache "...Trancopal offered considerable relief by alleviating both apprehension as well as musculoskeletal discomfort." Hergesheimer⁴ comments: "...Trancopal acts to reduce the initial painful spasm and to allay anxiety, resulting in a cooperative patient whose subsequent recovery and return to work is accomplished more quickly."

Available: 200 mg. Caplets[®] (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100. **Dosage:** Adults, 200 mg. three or four times daily; children (5 to 12 years), from 50 to 100 mg. three or four times daily.

and when pain is a major factor... *Trancoprin*[®]

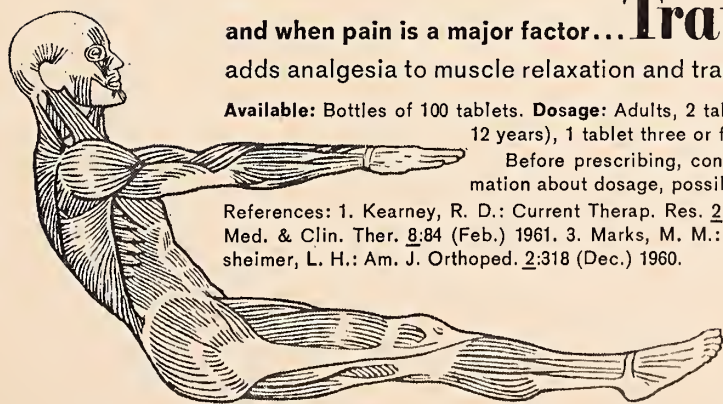
adds analgesia to muscle relaxation and tranquilization

ASPIRIN [5 GRAINS] 300 MG.
TRANCOPAL 50 MG.

Available: Bottles of 100 tablets. **Dosage:** Adults, 2 tablets three or four times daily; children (5 to 12 years), 1 tablet three or four times daily.

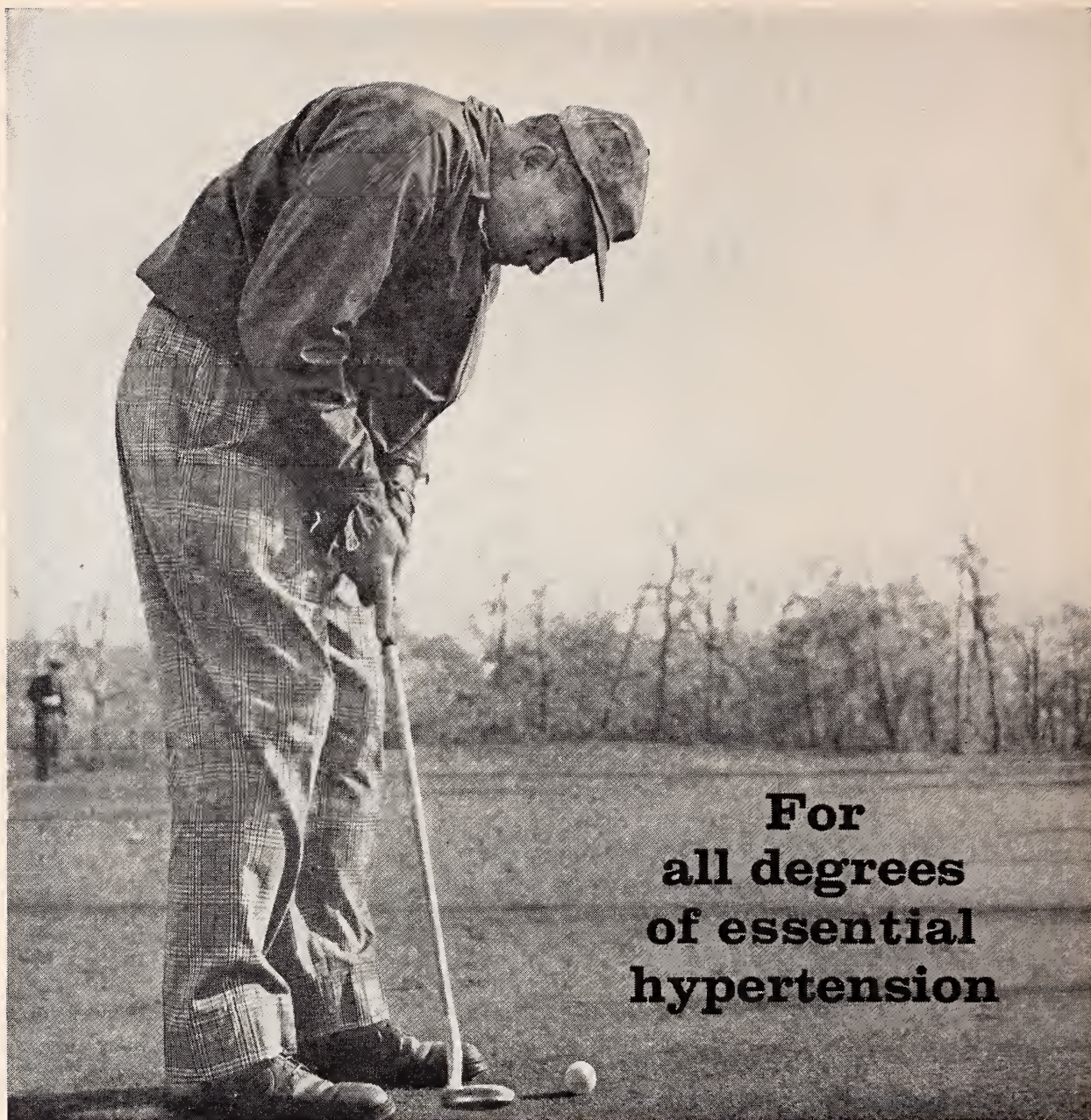
Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. Kearney, R. D.: *Current Therap. Res.* 2:127 (April) 1960. 2. Cornbleet, T.: *Antibiotic Med. & Clin. Ther.* 8:84 (Feb.) 1961. 3. Marks, M. M.: *Missouri Med.* 58:1037 (Oct.) 1961. 4. Hergesheimer, L. H.: *Am. J. Orthoped.* 2:318 (Dec.) 1960.



Winthrop LABORATORIES
New York 18, N. Y.

1696M



**For
all degrees
of essential
hypertension**

"relief of symptoms is striking with Rautrax-N"[†]

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin \bar{c} K (antihypertensive-diuretic) for greater antihyper-

tensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin \bar{c} K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

[†]Hutchison J. C.: Current Therap. Res. 2:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N^{*}

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB



*Squibb Quality —
the Priceless Ingredient*
SQUIBB DIVISION Clin

^{*}RAUDIXIN[®], ^{*}RAUTRAX[®], AND ^{*}NATURETIN[®] ARE SQUIBB TRADEMARKS.

Presidential Address

Clarence Edgar Yount, Jr., M.D.

President-elect, ARMA



C. E. Yount, Jr., M.D.

Dr. Smith, fellow members of the Arizona Medical Association, guests and friends. You have just conferred on me one of the greatest honors which can come to a doctor in this State. To be chosen to lead our group for a year is a great honor and a great responsibility. I shall do my best to be worthy of your confidence. With the

cooperation of all members we can have a successful year and might even see some of the problems which have plagued us for years settled. I wish I had many more proven qualifications for leadership than the fact that for 10 years I hoarded our monies and was able to build up our bank accounts!

My recollections of the Arizona Medical Association date back many years. I think perhaps one of the earliest that I can recall goes back to a fine day in 1913. On that day "Clarence and Caddie" piled their luggage in and on the Model "T" roadster and started off to the Annual Meeting in Globe. Before they reached "Copper Basin", twelve miles from home, Clarence had burned out the foot brake bands. Nothing daunted, they continued on with the mechanic, who accompanied Dr. Looney, driving the Ford and using reverse as a brake.

Dr. Looney's Cadillac gave up the ghost when the transmission "went out" on Yarnell Hill, or some other grade! Then the mechanic, Mother and Dad, crowded into the seat, and Dr. Looney rode under the rear deck, or "Turtleback" as they called them in those days. How four people and their luggage made it in that "compact" I'll never know!

Somehow along the line the bands were replaced, and Dad and Mother continued alone. They negotiated "Fish Creek Hill" and all the other grades successfully, and got to that meeting, probably before the House of Delegates was through its first session! People were hardy in those days, and really made an effort to attend the meetings. Well, enough of this reminiscing, which could go on for a long time.

Problems facing us in Arizona today are numerous. We have our own local ones, and also our share of the national ones. In the past few years your incoming presidents have ably discussed such topics as "The Image of Medicine", "The Medical School", "The Doctor in Politics", and other subjects. All of these problems are still with us, and I shall just touch on them lightly.

The need for a favorable "image" is ever present. It can only be improved by the individual effort of each physician with his patients. If each of us favorably impresses his own group the result will be a better opinion of Medicine as a whole. We are told that the J.A.M.A. was concerned with this problem about the year I was born. So you can see it is not a new one!

Next I will venture in where angels, or wiser heads, fear to tread, and then rush out again.

The President's Page

This venture is to make some comments on the Medical School situation. The "Volker Report" has been issued in its complete form. The recommended location for the school has been commended by some, and violently assailed by others. So far, this has been violently partisan, depending upon the residence of the speaker. Emotions have taken the place of cold, scientific detachment expected of Men of Medicine. Let us not forget that this is to be a State school, and not a local proposition. In my opinion the Association Medical School Committee acted in the best interests of the Association at their meeting July 9, 1961 when they declared "that it is not now proper for the Association to add its voice in special pleading as to the location of a Medical School". Further, I believe we should reaffirm the action of the Board of Directors in further resolving to bring pressure to bear to insure that "an early start be made on the establishment of a Medical School". Let us have harmony in the Association, and strive to carry out our 1958 Resolution. We all want "a Medical School equipped and staffed for pre-clinical and clinical education, on a nationally competitive level of excellence". We have now been assured that the need for a school is manifest, and that Arizona is financially able to pay the costs of such a school.

Public Health problems considered of prime importance to the State were discussed in the breakfast seminar this morning, by the State Commissioner of Health, the Health officers of our two most populous Counties, and the Health Officer from the neighboring State of Sonora. If you missed this, I am sorry. Perhaps Darwin will get enough from the tapes to publish a summary in "Arizona Medicine".

Due to the foresight of early Legislators, care of the aging ill is not the neglected problem that it is said to be in some other states. We have not been able to implement Kerr-Mills law here because of the "residency clause" in our Welfare Code. This is undoubtedly a wise proviso, for without it we might enact Kerr-Mill's legislation and find our State Welfare Funds bankrupted by an influx of ill elderly, indigent persons who would reap the benefits while contributing little or nothing to our tax receipts. Study must be made to determine what can be done in Arizona to further meet the needs of elderly indigents who are ill.

This, however, does not diminish the need for our continued fight against the Social Security approach to care for the aging as represented by HR 4222, the "King Anderson Bill". At the present writing, this bill seems to be destined to make little progress before the Congress adjourns for Easter. This should give our fledgling "Speakers Bureau" a chance to get in some solid blows against this Socializing bill. Ever since I became a member of the Council in 1949 we have been faced with repeated attempts to bring Socialized Medicine to our Country. It seems to make no difference which party occupies the Executive Mansion, as long as the "lefters" are in the Bureaus, that is what counts. Our continued efforts should be directed toward making Washington an unfavorable climate for the lefters, and bringing the Country back to a more sane course than we have been following in recent years.

The latest approach in our fight against Socialism is the formation of "Political Action Committees". American Medical Political Action Committee was born at the Annual AMA meeting in June, 1961. The AMA Board of Trustees recognized the need for an organization to provide physicians of the Country an effective, coordinated, political action effort. The Committee is a non-profit, voluntary, non-partisan, unincorporated political action organization. Membership is available to physicians, their wives, immediate members of the family and others.

The purposes of the A.M.P.A.C. are:

1. To promote and strive for the improvement of government by encouraging and stimulating physicians and others to take a more active and effective part in governmental affairs.
2. To encourage physicians and others to understand the nature and actions of their government as to important political issues and as to the records of officeholders and candidates for elective offices.
3. To assist physicians and others in organizing themselves for more effective political action and in carrying out their civic responsibilities.
4. To do any and all things necessary, or desirable, for the attainment of the purposes stated above.

Jefferson's one-sentence summary of the essential principles on which our Country was founded, has always intrigued me. "Equal and exact justice to all men, of whatever state or

persuasion, religious or political; peace, commerce, and honest friendship with all nations, entangling alliances with none; the support of the State governments in all their rights, as the most competent administration for our domestic concerns, and the surest bulwarks against anti-republican tendencies; the preservation of the general government in its whole constitutional vigor as the sheet-anchor of our peace at home and safety abroad; a jealous care of the right of election by the people, a mild and safe corrective of abuses which are lopped by the sword of revolution where peaceable remedies are unprovided; absolute acquiescence in the decisions of the majority, the vital principles of republics from which there is no appeal but to force, the vital principle and immediate parent of despotism; a well disciplined militia our best reliance in peace, and for the first moments of war, till the regulars may relieve them; the supremacy of the civil over the military authority; economy in public expense that labor may be lightly burdened; the honest payment of our debts, and sacred preservation of the public faith; encouragement of agriculture and of commerce as its handmaid; the diffusion of information, and arraignment of all abuses at the bar of public reason; freedom of religion, freedom of the press, and freedom of person under protection of habeas corpus, and trial by juries impartially selected. These principles form the bright constellation, which has gone before us, and guided our steps thru an age of revolution and reformation. The wisdom of our sages and blood of our heroes have been devoted to their attainment; they should be the creed of our political faith, the text of civic instruction, the touchstone by which to try the services of those we trust; and should we wander from them in moments of error or of alarm, let us hasten to retrace our steps, and to regain the road which alone leads to peace, liberty and safety".

How very far we have strayed from these basic principles enumerated by Thomas Jefferson in his first inaugural address in 1801. We were started on the wayward path by Wilson's "New Freedom", and led farther off by Roosevelt and the "New Deal". Now no one can say how far we will stray in the next 2½ years in our search for the ill-defined "New Frontier". Proper evaluation of candidates for office and their proposals could do a great deal to stop this headlong rush toward socialism. It has been said that by the

end of '64, if there is no change, we will have gone beyond the "point of no-return".

Elections of 1962 will probably make or break us in this trend. If enough conservative representatives can be sent to the next Congress by efforts of AMPAC, the welfare of our country, instead of "one-worldness" may be restored in our national thinking. Then by '64 a force may be built up which may restore us to a semblance of national sanity and financial soundness. If we do not arouse from our somnolence and "get on the ball" we will most assuredly later find that things we hold dearest have been taken away. It now appears that American men of Medicine are about the only ones interested in preserving the free enterprise and other aspects of the American Way. Now we must be even stronger than steel!

My plea is that we get a good AMPAC going at the earliest possible date. We need a good "house cleaning" in the Legislature, and we need to send four more good men to Washington. I am looking now for a busy doctor to head this group in our State. The busier he is the better job he will do for us. Any volunteers?

**Serving Arizona
Health Needs
Since 1908**


**Ryan-Evans
DRUG STORES**

Phoenix - Tucson - Scottsdale - Maryvale

Glendale - Sunnyslope - Tempe - Globe

Casa Grande - Miami - Wickenburg


'B. W. & Co.' 'Sporin' Ointments
rarely sensitize . . .
give decisive bactericidal action
for most every topical indication




'CORTISPORIN'[®]
brand Ointment

Broad-spectrum antibacterial action—plus the soothing anti-inflammatory, antipruritic benefits of hydrocortisone.

The combined spectrum of three overlapping antibiotics will eradicate virtually all known topical bacteria.



'NEOSPORIN'[®]
brand Antibiotic Ointment



'POLYSPORIN'[®]
brand Antibiotic Ointment

A basic antibiotic combination with proven effectiveness for the topical control of gram-positive and gram-negative organisms.

Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ¼ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ¼ oz. (with ophthalmic tip)	Tubes of ½ oz. and ¼ oz. (with ophthalmic tip)



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York




Emotional control regained...a family restored... thanks to a doctor and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances because it is:

- specific enough to relieve underlying fear and apprehension
 - profound enough to control hyperactivity and excitement
 - flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level
- Experience in over 14,000,000 Americans

confirms the fact that, in most patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Smith Kline & French Laboratories 

Thorazine[®]

brand of chlorpromazine

A fundamental drug
in both office and hospital practice

Posed by professional models.

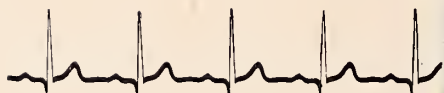
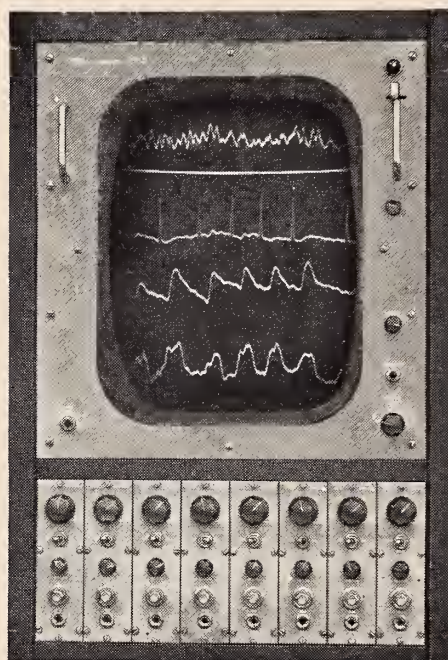
For prescribing information, please see PDR or SK&F literature.

See it...

With this Sanborn Viso-Scope® a surgeon, anesthetist or nurse can easily keep a constant watch on the condition of a patient, even from another room. The 17-inch 'scope provides a brilliant, uncrowded display of up to 8 physiological phenomena such as ECG, EEG, pressure and other dynamic events when used in conjunction with Sanborn multi-channel recording systems. Important in the operating room — the Model 769 Viso-Scope and other "760" Series monitor instruments are designed for safe use in the presence of explosive gases. Researchers and teachers will find the Viso-Scope useful for displaying tape-recorded phenomena from the Sanborn Series 2000 Magnetic Data Recorder.

Behind this monitoring equipment is the more than 30 years of experience that goes into our electrocardiographs — the 2-speed Model 100 Viso . . . its mobile counterpart the Model 100M . . . and the compact, fully portable, 18-pound Model 300 Visette. Our purpose is to provide dependable instruments that deliver needed information in its most usable form.

on a Sanborn monitoring 'scope



SANBORN COMPANY
MEDICAL DIVISION Waltham 54, Mass.

PHOENIX Resident Representative 8341 N. 7th St., 943-6917



The Milibis[®] vaginal suppository is soft and pliant as a tampon. It offers proved therapeutic action* in an exceptional vehicle. The suppository is clean, odorless and non-staining. The course of treatment of vaginitis (trichomonal, bacterial and monilial) with Milibis is short — only 10 suppositories in most cases. Milibis[®] vaginal suppositories are supplied in boxes of 10 with applicator.

Winthrop LABORATORIES
New York 18, N. Y.

*97 per cent effective in a study of 564 cases;
94 per cent effective in a study of 510 cases.

Milibis (brand of glycobarsol),[†]

ENDOCRINE AND PHARMACEUTICAL PRODUCTS OF QUALITY



*An important announcement
to physicians who prescribe
corticosteroids*

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone... 8 times more potent than prednisone or prednisolone... 28 times more potent than hydrocortisone... and 35 times more potent than cortisone.

If you are now prescribing the newer corticosteroids— such as triamcinolone, betamethasone, paramethasone or another brand of dexamethasone, because of reduced risk of sodium and fluid retention, potassium depletion, or disturbance of glucose metabolism—you can obtain all of these benefits with HEXADROL, at marked savings—yet with complete assurance of unsurpassed quality and therapeutic effect.

For complete information concerning HEXADROL— including indications, dosage, precautions and side effects—or if you would like a trial supply, ask your Organon Representative, or write to: Director, Professional Services, Organon Inc., West Orange, N. J.

***'Organon'—your professional assurance of quality
Hexadrol®—your patient's assurance of economy!***

THIRD PARTY MEDICINE

It has long been the contention of organized medicine and of thinking doctors as individuals that the inclusion of any medical services under Blue Cross plans is undesirable. The American College of Radiology has been very active in contesting the attitude of Blue Cross plans and in urging that diagnostic services and therapeutic services offered in hospitals should be transferred from Blue Cross to Blue Shield. This attitude is seconded and strongly endorsed by the College of American Pathologists and by groups of anesthesiologists and physiatrists.

Recently, the inclusion of these particular services by the National Blue Cross Association in its proposed plan for the care of the aged caused a further reaffirmation of this position. The introduction of a third party between the doctor and the patient is undesirable and the treatment of any medical specialty in a different manner than others is likewise improper. Physicians and all medical organizations oppose and resent hiring of physicians by hospitals with

a resale of the services of these doctors for medical fees, whether such fees are paid directly by patients or through the medium of prepayment insurance. Under the proposed Blue Cross contracts, these services would be provided to the aged as they are under many Blue Cross plans at the present time. This implies that highly trained individuals in the field of radiology where dangerous and potentially damaging physical factors are utilized; in anesthesiology where the borderline between danger and safety is thin; in pathology where skill and experienced judgment are essential might even become salaried functionaries of hospitals. It, like any other opening wedge, is but one of the inherent dangers in the overriding of hospital functions. There is a shift of ultimate responsibility from physician to lay board or administrator who are untrained to exercise this authority even though their intentions are undoubtedly the highest.

The function of hospitals should be limited to those which have been adequately defined

ARIZONA MEDICINE

ARIZONA MEDICINE

Darwin W. Neubauer, M.D. Editor
Margaret McMahon Secretary to the Editor
720 N. Country Club Rd., Tucson, Arizona

ASSISTANT EDITORS

Robert Carpenter Arizona Medical Association Reports
Richard L. Dexter, M.D.
Joe E. Ehrlich, M.D.
Mayer Hyman, M.D.
Clarence L. Robbins, M.D.
Preston J. Taylor, M.D. Original Articles
Juan E. Fonseca, M.D.
Augusto Ortiz, M.D. Medical Society of the
Byron Browder United States and Mexico
Lindsay E. Beaton, M.D.
R. Lee Foster, M.D.
William B. McGrath, M.D.
Leslie B. Smith, M.D. Editorial Section
Howell S. Randolph, M.D. In Memoriam
Andre J. Bruwer, M.D. Reprints
John W. Kennedy, M.D.
Paul J. Matte, Jr., M.D. Historical Section

ASSOCIATE EDITORS

Charles W. Elkins, M.D. Neurosurgery
A. K. Hansen, M.D. Ophthalmology
Louis G. Jekel, M.D. Dermatology
Robert Lacock, M.D. Ob-Gyn.
C. Thomas Read, M.D. Chest Surgery
Wallace A. Reed, M.D. Medical Economics
Gerd Schloss, M.D. Pathology
Paul L. Singer, M.D. Genito-Urinary
Hugh H. Smith, M.D. Public Health
Alvin L. Swenson, M.D. Orthopedics
William G. Ure, M.D. Tuberculosis
Roger F. White, M.D. Pediatrics

Editorials of Arizona Medicine are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

ADVERTISING AND SUBSCRIPTION OFFICES

Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

"The material in this journal is not copyrighted. We would like to ask that anyone using material from it note the previous publication in ARIZONA MEDICINE."

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.

2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

3. Be brief, even while being thorough and complete. Avoid unnecessary words.

4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.

5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.

6. Exclusive Publication — Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.

7. Reprints will be supplied to the author at printing cost.

Editorials

by the AMA many times to "include only hospital room accommodations, such as bed, board, operating room, medicine, surgical dressings, and general nursing care."

Since these services, by the very proposition offered under Blue Cross, are already available under many Blue Shield plans, both in and out of hospitals, it seems both unwise and unjust that they be included in this new national plan. Should such coverage be required by circumstances it can be provided under Blue Shield riders to the Blue Cross contract as has been done on many occasions such as in Michigan, Kansas, Missouri, Nebraska, etc. Actually, under the Blue Cross proposition "medical services" will be provided under Blue Cross and this makes it essential that *all* medical services thus be handled.

One other objection is the fact that only "in-hospital" diagnostic services under Blue Cross would be included and it seems quite manifest from past experience that over-utilization of hospital beds is an almost inevitable result.

It is most desirable that proper radiographic, pathological, and anesthesiology services be provided for those who need them. The improvement of medical care with good radiography, pathology and proper anesthesiology as well as physical medicine of a high type requires that it be provided without intervention of hospitals, and with no possible interjection of a third party between doctor and patient, on the same basis as all other medical services. The potential spread of this type of captive hospital medicine to other specialties is obvious. It is apparent that out-patient hospital radiotherapy is included in the American Hospital Association plan. It is a short step to the appropriation of other fields of treatment.

Medicine, in all its branches, is and should be a Blue Shield, not a Blue Cross contract function.

Arthur J. Present, M.D.

MENTAL FITNESS

Mind, like a thoroughbred horse, is much bigger and stronger than equestrian ego. When not collected by attention it will run off. This occurs with our loose-reined permission in day-

dreaming. In delirium, the mind goes out of control.

Our cerebral horse may stumble. It will trip most dangerously on mistaken or misplaced beliefs. Belief in a fact may or may not be mistaken. Belief in a theory is always misplaced.

Someone asks, "Doctor, do you believe in Freud or in the psychoanalytic theory of neurosis?" Our polite reply, "Well, yes and no," means neither yes nor no. We use all kinds of theories. We never "believe in" any of them.

A fact is a fact. It can be proven. It can be believed. A fact by itself cannot be explained or interpreted. ("Doctor, what does it mean that I dreamed of snakes?" It means that you dreamed of snakes.) A theory explains not facts but orders or relationships among facts. A theory cannot be proven (observed). A theory cannot be believed.

All you can do with a theory is use it and try to disprove it.

Suppose you find certain brain changes in every one of a hundred or a thousand mental defectives. It is your hypothesis that the changes are specific. And you work out a theory to explain and predict a relationship (e. g., cause and effect, or a third common cause) between the sets of facts. Inductively, you can never know whether there are mental defectives who do not have the brain changes, or whether comparable brain changes occur without mental deficiency. Deductively, you can never be certain but that another theory will better account for the relationship. We may find your theory plausible and we may use it, but we must not believe in it.

An astronaut is embarking on an indescribably perilous journey. Well-meaning spectators utter their pious untruths: "We just know that he will return safely. We are certain that everything will turn out all right." Do you see that they are repudiating his courage, denying his heroism? They — but especially he — may be in for a terrible shock. Misplaced faith is infinitely more insulting to God and man than no faith at all.

A cruel example is to put a friend on a faultless pedestal. There he awaits our inevitable disillusionment and disparagement. A patient says, "I thought he was God or something," — but always in the past tense!

In the hospital is a man in despair. He has an involutional depression. Pending the psychia-

trist's first examination, the family doctor, the clergyman, the nurses and the relatives gather to assure and encourage the patient: "My, you look better already. That specialist will have you back on your feet in no time at all." Imagine the fearful and raging sense of abandonment to which these foolish remarks may drive the patient. They flatly invalidate his suffering. They suggest that there is really not much wrong with him and that he needs (and will get) very little help. (Even if the patient were hysterically impersonating, he would almost have to save face by resisting recovery for a "decent" interval).

Or the depressive is told: "We're sure you'll come right out of it if you'll just pray a little harder." Would you say that to a cancer victim or to a man who has just lost his wife? Prayer and faith are wonderful — in the right place or direction.

From astrology to Zen, from astronomy to zoology, there are metaphysical and physical theories without number. Course of one's convictions is senseless and often vicious when one's convictions are based on theories and not on facts. Misplaced belief means too loose a rein on the mind. Despite the rider's gymnastic rationalizations, the horse may still fall.

Too tight a rein, with immobilization or rearing of the mind, occurs when we hold that theories must contradict each other. They usually don't. The question is not, which theory is

right and which is wrong (or true or false). The question is, which theory is more probable and workable. The differences, of course, are in the postulates or standards of judgement. The issue of location of a medical school provides an illustration. Arguments for one city and arguments for another city are both "right," if it is agreed that a medical school is feasible at all. Depending on a number of criteria and their relative weight, one location will appear "righter" than the other. Arguments that one location is "wrong" soon become arguments against both or any location. We approach self-contradiction: we do need a medical school; but if it is to be over there we do not need a medical school.

A clearer illustration, perhaps, is wave theory versus particle theory of light. Each theory is useful as far as it goes. Nor does it pain the scientists to have to employ one and then the other and then both in his work. When one or the other theory can later be proven "true" it will be no longer a theory but a fact. Circumnavigation of the globe did away with both theories, flatness and roundness. It proved to be a fact that the earth is much more nearly round than flat. This we can believe.

About anything that is sensible we can in fact have convictions. Paradoxically, our strongest and safest principles and theories are uncertain; are those which welcome correction and growth. Mental strength without suppleness is ossification.

William B. McGrath, M.D.

Dear Doctor:"

In your busy night-and-day preoccupation with other people's lives, it is very difficult for you to find time to think about your own future.

Yet face it you must for the sake of your family.

We urge you to join with our many other friends and customers of the medical profession, and arrange for a visit—with your lawyer—to our Trust Department.

Discuss your estate plans in detail. Let an experienced Trust Officer show you how the group-judgment of specialists in the Trust field will insure your estate being handled soundly, economically—and to the letter of your Will.



TRUST DEPARTMENT
Security Building, Phoenix
Resources \$750 Million

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

paf

DOUCHE POWDER

Buffered to control a normal vaginal pH.

P.A.F.'s low surface tension increases penetration into the vaginal rugae and dissolution of organisms including trichomonas and fungus.

P.A.F.'s high surface activity liquifies viscus mucus on vaginal mucosa, releasing accumulated debris in the vaginal tract.

Non-irritating,
non-staining.

No offensive
after-odor.



G. M. Case Laboratories — San Diego, Calif.

POST-EZE SYSTEMS ARE AVAILABLE FOR:

- ★ ACCOUNTS RECEIVABLE
- ★ ACCOUNTS PAYABLE—PURCHASES
- ★ ACCOUNTS PAYABLE—CASH DISBURSEMENT



Now, small- and medium-size offices can effect the economies of mechanized accounting *without buying machines or employing specialized operators.*

POST-EZE simplified plans save up to 66% of time, eliminate transcription errors, and keep all records up-to-date and in balance, because: —

- ONE writing posts all records
- ONE simple proof proves all records

To Learn How you will save up to 66% (it only takes 10 minutes)

CALL FOR TRAINED REPRESENTATIVE

Alpine 4-6611
3111 N. 29th Avenue
PHOENIX, ARIZONA

MAin 2-2446
604 N. 4th Avenue
TUCSON, ARIZONA





Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE:** 1 TABLET Q.I.D.



This beautiful, heated swimming pool highlights the spacious lawn and recreation area at Camelback Hospital. Other outdoor activities include volley ball, ping pong, shuffleboard and badminton, all under the supervision of a trained therapist. Those preferring restful relaxation may enjoy a quiet conversation in the beautiful lawn and grove area with its scenic mountain backdrop.

Camelback Hospital

5055 North 34th Street

AMherst 4-4111

PHOENIX, ARIZONA

OTTO L. BENDHEIM, M.D., F.A.P.A., Medical Director

Located in the heart of the beautiful Phoenix citrus area near picturesque Camelback Mountain, the hospital is dedicated exclusively to the treatment of psychiatric and psychosomatic disorders, including alcoholism.




SUCCESSFUL FAMILY PLANNING...BASED ON YOUR COUNSEL AND **LANESTA® GEL**

As a physician, you play an essential role in the happiness and well-being of the family. At all times—when the young couple is first married, as the children arrive, and even after the family is complete — your counsel, including your recommendations for the use of Lanesta Gel, is of major importance.

Lanesta Gel, with or without a diaphragm, is a most effective means of conception control. Lanesta Gel effects speedier spermicidal action because it diffuses rapidly into the seminal clot. In fact, *the mean diffusion spermicidal time of Lanesta Gel is three to seven times faster than the mean diffusion times of ten leading, commercially available contraceptive creams, gels, or jellies*, according to Gamble ("Spermicidal Times of Commercial Contraceptive Materials — 1959").*

Lanesta Gel has complete esthetic acceptance and is well tolerated.

*Gamble, C. J.: Am. Pract. & Digest Treat. 11:852 (Oct.) 1960. See also Berberian, D. A., and Slighter, R. G.: J.A.M.A. 168:2257 (Dec. 27) 1958; Olson, H. J.; Wolf, L.; Behne, D.; Ungerleider, J., and Tyler, E. T.: California Med. 94:292 (May) 1961; Kaufman, S.A.: Obst. & Gynec. 15:401 (Mar.) 1960; Warner, M.P.: J.A.M. M. Women's A. 14:412 (May) 1959.

A PRODUCT OF LANTEEN® RESEARCH  **Supplied by Esta Medical Laboratories, Inc., Alliance, Ohio**

Distributed by
BREON LABORATORIES INC., New York 18, N. Y.



THE HOSPITAL BENEFIT ASSURANCE PLAN GUARANTEED RENEWABLE FOR LIFE



THE H. B. A. LIFE INSURANCE COMPANY

A LEGAL RESERVE LIFE AND DISABILITY CAPITAL STOCK INSURANCE COMPANY
HOME OFFICE: FIRST STREET AT WILLETTA • PHOENIX, ARIZONA • ALpine 8-4888

DUKE R. GASKINS, M.D.
MEDICAL DIRECTOR

Dear Doctor:

HBA is known as "The Plan that Protects the Hospital Too" and in protecting the hospital — protects the physician for his fee, too.

When the HBA membership card is presented to the hospital, through the terms of the policy, it automatically authorizes HBA to pay the proceeds direct to the hospital and to you.

We are, therefore, in the position that the proceeds must be paid direct to you unless the patient can show that he has already paid his bill.

We realize that many hospitals and many physicians and surgeons offer their services to patients on the basis that the insurance will help in payment.

We are proud to be in a position to protect you from the patients who might collect the money from an insurance company and use it for a trip — down payment on a new car or other uses for which it was not intended.

Sincerely yours,

Duke R. Gaskins, M. D.

Medical Director

Offices in:

First at Willetta
Phoenix, Arizona
456 N. Country Club Dr.
Mesa, Arizona
31 N. Tucson Blvd.
Tucson, Arizona

Basic Criteria For Blood Transfusion

RESPONSIBILITY FOR TRANSFUSION THERAPY

Standards for a blood transfusion service, including those published by the Joint Blood Council and the American Association of Blood Banks have been limited to proper methods of avoiding reactions and have not emphasized the indications for transfusion as well as the choice and amount of material for various conditions.

The term "Transfusion Service" implies more than simply furnishing material for a transfusion. The practice of transfusion requires technical knowledge and experience; physiopathologic states and the hydrodynamics of circulation must be evaluated when transfusions are considered. Because of its inherent danger, transfusion involves great responsibility on the part of all participating in the procedure.

In case of unfavorable reaction following a transfusion, much of the responsibility rests with the physician who has ordered the transfusion. Requests for transfusion of whole blood or blood derivatives should be made with notation of the indication for transfusion in order that the physician or physicians in charge of the Transfusion Service may be able to advise concerning the speed and volume of transfusion, as well as the type and quantity of material best suited to the patient's needs.

Requests for blood transfusions for elective operations should be made at a reasonable time before operation with full consideration of the actual expected need.

CRITERIA FOR CHOICE OF TRANSFUSION MATERIAL

(1) *Whole Blood vs. Blood Components or Derivatives*

For optimal therapeutic effect and for maximal utilization of blood resources, whole blood transfusions should be used only when whole blood is needed.

(2) *Whole Blood*

Whole blood transfusions should be used primarily in the treatment of or anticipation of acute blood loss when it is necessary to restore or maintain the blood volume as well as the oxygen carrying capacity. Plasma, albumin, or volume expanders may be used temporarily,

while whole blood is being made available. Blood of any acceptable period of storage may be used for the relief of acute blood loss, except for the conditions noted below.

A patient who has had a severe hemorrhage but in whom bleeding has subsided, or a severely anemic patient in the course of an acute condition, may receive blood which has been stored up to its maximal dating period.

(3) *Fresh Whole Blood or Fresh, Platelet-rich Plasma*

Use of fresh whole blood (less than 24 hours old) should be limited to patients suffering from acute hemorrhage due to thrombocytopenia, hemophilia, or other coagulation defects caused by deficiency of unstable factors.

Blood not over five days old should be used in patients with factor V deficit (Labile factor, Ac. globulin, Proaccelerin) and for exchange transfusion in erythroblastotic infants.

If bleeding occurs in the course of thrombocytopenia without significant associated anemia, platelet-rich plasma separated from citrated blood not over 24 hours after collection may be used.

In patients with active bleeding from hemophilia but not significantly anemic, specially prepared plasma separated from fresh blood is the material of choice. This plasma must be used at once or stored freeze-dried, or frozen.

When an actively bleeding patient requires numerous transfusions in rapid succession, it is desirable to use some fresh blood, containing the maximal amount of fresh platelets, to avoid excessive exhaustion of platelets in circulation.

(4) *Packed Red Blood Cells*

Packed red cells supply nearly all of the oxygen carrying capacity of the blood with about one-half the volume of whole blood and with significant reduction of plasma constituents. They are adequate for transfusing anemic patients who are not hypoproteinemic and are particularly used in those with associated heart or kidney disease, especially if edema is present or impending.

The use of packed red cells (less than 5 days old) is recommended when the recipient must depend on repeated transfusions for survival in the course of severe anemia. Blood nearing its

Topics of Current Medical Interest

expiration date should not be used for such patients, as in so doing more transfusions will be required for the maintenance of an adequate level of hemoglobin thus exposing the patient to the danger of iron overloading, hepatitis and other transfusion hazards.

When making a decision regarding use of packed red cells or whole blood for the treatment of chronic anemia, the physician should consider cardiac reserve, blood volume, hemoglobin concentration, underlying disease, and symptoms resulting from the anemia. Packed red cells should be used especially for patients with low cardiac reserve and a normal or increased blood volume.

(5) *Plasma, Plasma Fractions, Albumin*

In the treatment of shock due to selective loss of plasma components rather than to blood loss, albumin or plasma are better for replacement than whole blood. Examples of this situation may be found in acute pancreatitis, acute mesenteric thrombosis and extensive burns.

In the treatment of hypoproteinemia, when there is edema with increased body sodium, human serum albumin is the preferred replacement therapy. In hypoproteinemia unassociated with edema, as for example, in chronic under-nutrition, albumin, plasma or stable plasma fraction are satisfactory.

(6) *Single Transfusions*

A predominance of single transfusions (more than 50%) in any hospital implies a need for critical re-assessment of blood usage in that hospital, with the recognition, however, that

there are indications for the single transfusion.

Transfusing convalescent patients with moderate anemia is usually unnecessary.

Adopted by the
Board of Directors
Joint Blood Council

KING-ANDERSON BILL

The administration-backed proposal, the King-Anderson bill, features medical care for the aged through an increase in social security taxes. The social security taxes would rise by $\frac{1}{4}$ per cent on employers and employees. Wages subject to the taxes would be lifted to \$5200 from \$4800. Workers and their employers each would thus pay up to \$25 more a year. For self-employed persons, the tax rise would be $\frac{3}{8}$ per cent . . . on a \$5200 base.

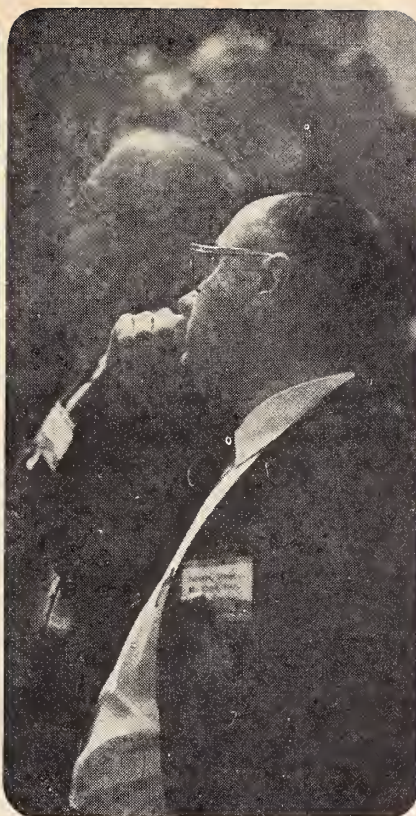
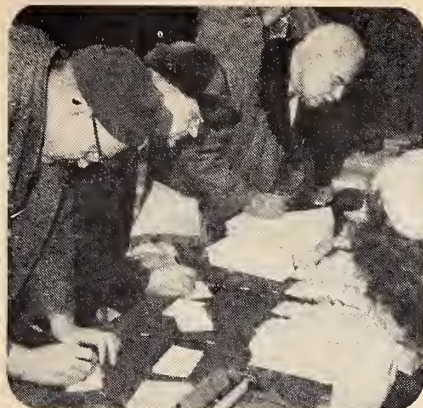
The bill would provide limited health insurance as follows for persons 65 and over who are eligible for a social security pension:

Full hospitalization for up to 90 days. Patients would have to pay a minimum of \$20 . . . a maximum of \$90.

Nursing home care for as much as 180 days would be available.

As many as 240 home visits a year from nurses or therapists would be provided, as well as outpatient diagnostic services at a hospital.

No medical services are provided other than hospital-furnished. Doctors' and surgeons' bills are not covered in any way by the proposal.



Welcome to another year of Lederle Symposia

Recognizing that the exchange of ideas is fundamental to medical progress, Lederle continues its Symposium program with the 11th year of scheduled meetings. Through these Symposia, sponsored by medical organizations with our cooperation, over 55,000 physicians have had the opportunity to hear and question authorities on important advances in clinical medicine and surgery. You have a standing invitation to attend any of these Symposia with your wife for whom a special program is planned.

SPOKANE, WASHINGTON
Saturday, June 2, 1962
The Davenport Hotel

BIRMINGHAM, ALABAMA
Saturday, June 2, 1962
Dinkler-Tutwiler Hotel

WASHINGTON, D. C.
Saturday, June 9, 1962
Marriott Motor Hotel

LAND O'LAKES, WISCONSIN
Sunday, June 17, 1962
King's Gateway Hotel and Inn

EAU CLAIRE, WISCONSIN
Wednesday, June 20, 1962
The Eau Claire Hotel

ATLANTA, GEORGIA
Wednesday, July 18, 1962
The Hotel Dinkler Plaza

SAN ANTONIO, TEXAS
Sunday, September 9, 1962
The Granada Hotel

CLARKSBURG, WEST VIRGINIA
Sunday, September 9, 1962
The Stonewall-Jackson Hotel

TYLER, TEXAS
Wednesday, September 12, 1962
Carlton Hotel

KANSAS CITY, KANSAS
Friday, September 14, 1962
Battenfeld Auditorium

WOODSTOCK, VERMONT
Wednesday, September 19, 1962
The Woodstock Inn

NIAGARA FALLS, ONTARIO
Saturday, September 29, 1962
Sheraton-Brock Hotel

RAPID CITY, SOUTH DAKOTA
Saturday, October 6, 1962
Holiday Inn

FINDLAY, OHIO
Thursday, October 11, 1962
The Findlay Country Club

HONOLULU, HAWAII
Sunday, October 21, 1962
The Princess Kaiulani Hotel

NEWARK, NEW JERSEY
Sunday, October 28, 1962
Robert Treat Hotel

SANTA BARBARA, CALIFORNIA
Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
Marott Hotel



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

HOME LOANS

5^{3/4}%

To buy a home . . .
Refinance your present
one . . .

See Lantz & Co. first
for your home
financing. Chances are
you'll save money . . .
get faster service, too.
Low-cost monthly
payment home loans
for as much as \$40,000
with terms to fit
your needs.

Call or stop in
TODAY!



your home loan
can be
arranged quickly.

LANTZ & CO.

655 N. Scottsdale Rd.
SCOTTSDALE

946-5371

YOUR PROFESSIONAL GROUP ACCIDENT AND SICKNESS INSURANCE POLICY

Approved and Recommended by
Your Insurance Committee and
Board of Directors



A Program Designed For
The Members Of
**THE ARIZONA MEDICAL
ASSOCIATION, INC.**

By The
**NATIONAL CASUALTY COMPANY
OF DETROIT**



For Complete Information
CONTACT
CHARLES A. DELEEuw
3424 N. Central Ave. — AMherst 6-2403

PIMA COUNTY REPRESENTATIVE
RONALD DEITRICH
136 North Stone Avenue MAin 3-0583

CONSISTENTLY SUCCESSFUL IN RELIEVING DRY, ITCHY SKIN

Sardo®

BATH OIL

STUDY 1 Spoor, H. J.: N. Y.
State J.M. 58:3292, 1958.

satisfactory results in **88%** of cases

comments: "In practically every instance...
the patients experienced relief
from dryness and pruritus."

STUDY 2 Lubowe, I. I.:
Western Med. 1:45, 1960.

satisfactory results in **94%** of cases

comments: Sardo "reduced inflammation,
itching, irritation, and other
discomfort..."

STUDY 3 Weissberg, G.:
Clin. Med. 7:1161, 1960.

satisfactory results in **91%** of cases

comments: "Scaling disappeared, and...
the skin became softer and
smoother..." with Sardo.

INDICATIONS

eczematoid dermatitis

atopic dermatitis

senile pruritus

contact dermatitis

nummular dermatitis

neurodermatitis

soap dermatitis

ichthyosis



SARDO IN THE BATH releases millions of microfine water-miscible globules* which act to (a) lubricate and soften skin, (b) replenish natural emollient oil, (c) prevent excessive evaporation of essential moisture.

Patients appreciate pleasant, convenient SARDO.

Non-sticky, non-sensitizing, economical. Bottles of 4, 8 and 16 oz.

for samples and literature, please write...

SARDEAU, INC. 75 East 55th Street, New York 22, N. Y.*Patent Pending, T.M. © 1961



Digestant needed?

Cotazym-B provides the most potent pancreatic enzyme action available!

Cotazym-B supplies

12  TIMES GREATER FAT-SPLITTING LIPASE (STEAPSIN) ACTIVITY THAN PANCREATIN N.F.¹

7  TIMES GREATER STARCH-DIGESTANT AMYLASE (AMYLOPSIN) ACTIVITY²

5  TIMES GREATER PROTEIN-DIGESTANT PROTEINASE (TRYPSIN) ACTIVITY²

- PLUS BILE SALTS TO AID IN DIGESTION OF FAT, AND CELLULOSE TO AID IN DIGESTION OF FIBROUS VEGETABLES



COTAZYM-B is a new comprehensive digestant containing bile salts, cellulase and *lipancreatin* for supplementing deficient digestive secretions and helping to restore more normal digestive processes. *Lipancreatin*—"the most potent pancreatic extract available"³—is a concentrated pancreatic enzyme preparation developed by Organon.⁴ It has been clinically proven to be an effective agent for treating digestive disorders of enzymatic origin.^{1,4,5,6,7,8} COTAZYM-B is indicated for the symptomatic relief of dyspeptic or functional digestive disturbances characterized by bloating, belching, flatulence and upper abdominal discomfort.

Dosage: 1 or 2 tablets with water just before each meal.



REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: *South. M.J.* 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., *Am. J. Gastro.* 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: *Chicago Medicine*, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: *N. Y. St. J. Med.* 62:58, 1962.

ORGANON INC., WEST ORANGE, NEW JERSEY

Cotazym-B[®]

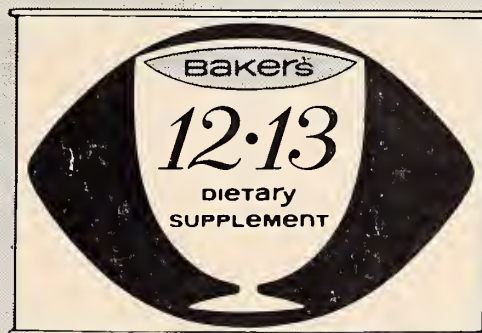
Lipancreatin Bile Salts Cellulase

NEW!

Baker's

12·13

DIETARY SUPPLEMENT



ABATES "UNCERTAIN NUTRITION"

New BAKER'S 12-13, a combination of essential nutrients, offers an effective aid for management of short-term or long-term supplementation in a wide variety of nutritional problems.

BAKER'S 12-13 is indicated for:

- geriatric patients
- pregnancy and lactation
- underweight and malnourishment
- pre- and post-surgical patients
- convalescence
- alcoholics
- ulcer patients
- dieting patients
- patients unable to take solid foods

Baker's 12-13 is an economical, balanced composite of all known dietary essentials: protein—fat—carbohydrate—minerals—vitamins.

When "nutrition is uncertain" . . . prescribe BAKER'S 12-13 for your patients.

COMPOSITION AND DIRECTIONS

Skim milk	Sucrose	Niacinamide
Non-fat milk solids	beta carotene	Tocopherols
Corn oil	Vitamin D ₃	Pyridoxine
Soy oil	Ascorbic acid	hydrochloride
Soy flour	Thiamine	Iron ammonium citrate
	hydrochloride	Artificial flavor
Approximate analysis:	Protein (N x 6.38)	30.1%
	Fat (Cholesterol-free)	10.4%
	Carbohydrate (by difference)	50.1%
	Ash	5.4%
	Moisture	4.0%

THE BAKER LABORATORIES, INC.

Quality Nutritional Products—for over a quarter of a century

CLEVELAND 15, OHIO

DIRECTIONS: Stir 4 heaping table-spoonfuls of 12-13 (2 oz. powder) into 8 oz. of water in a glass or bowl. Each delicious serving provides:

		% of R.D.A.*
Calories	230	10%
Protein	17 Gm.	25%
Fat	5.7 Gm.	**
Carbohydrate	27.5 Gm.	**
Calcium	475 mg.	60%
Vitamin A	1250 units	25%
Vitamin D	100 units	25%
Vitamin E	2.5 units	**
Vitamin C	35 mg.	50%
Thiamine	0.6 mg.	50%
Niacin	5.0 mg.	50%
Riboflavin	0.7 mg.	40%
Vitamin B ₆	2.0 mg.	**
Iron	5.0 mg.	50%

*Recommended Daily Allowances, National Research Council.

**Not established.

Baker's 12-13 is available in attractively packaged 12 oz. cans. Sold only in drug stores.

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR
CONDITIONING FOR YEAR ROUND COMFORT

The Franklin Hospital

Hospital License No. 71
Registered A.M.A.
Member A.H.A.

367 No. 21st Avenue
PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751

HOBBY HORSE RANCH SCHOOL

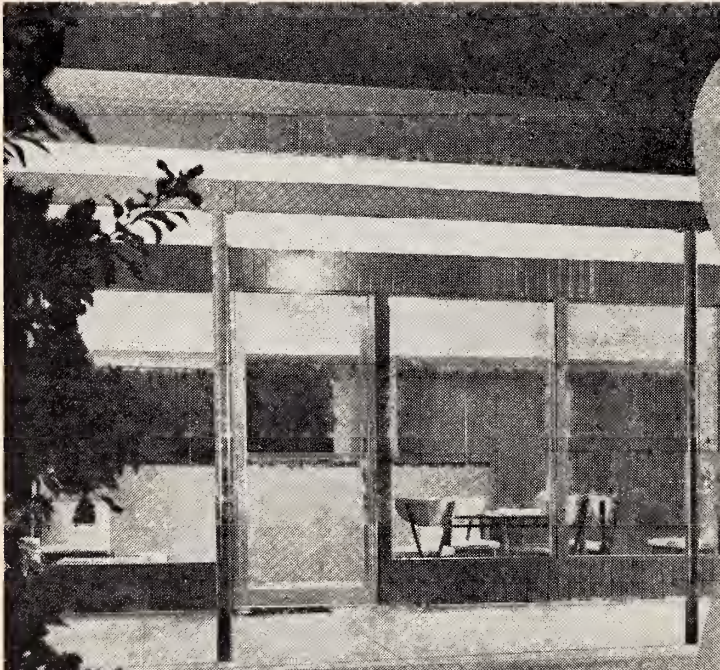
A School For Exceptional Children

The Hobby Horse Ranch School is both home and school for a small group of children. It welcomes the child who is mentally retarded and physically handicapped as well as the backward child who suffers no physical handicap.

The Hobby Horse Ranch School is a branch of Fairview School in Fishkill, New York which was established in 1936.

Directors: Blanche C. Lightowler, B.A.
Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.



**CAMELBACK
PROFESSIONAL
BUILDING**

ROBERT L. BEAL, M.D.
OTTO L. BENDHEIM, M.D.
PAUL M. BINDELGLAS, M.D.
HAL J. BREEN, M.D.
LEE S. COHN, M.D.
T. RICHARD GREGORY, M.D.
WILLIAM B. HAEUSSLER, M.D.
DERALD G. MAY, M.D.
HAROLD E. McNEELY, Ph.D.
ROBERT C. SHAPIRO, M.D.
WILLIS L. STRACHAN, M.D.
JOHN R. ZELL, M.D.

*general psychiatry and neurology
child psychiatry
psychoanalysis
clinical psychology
psychiatric social work
and family counselling*

**5051 NORTH 34th STREET
PHOENIX 18, ARIZONA
AM 4-4111**

*The cigarette
that made the filter famous!*



Kent's development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the "Micronite" filter refines away harsh flavor, refines away hot taste, makes the taste of a cigarette mild and kind.

Yes, Kent is kind-tasting to your taste buds, kind-tasting to your throat. Your taste buds become clear and alive with Kent.

• • •

**Your taste buds will tell you why
you'll feel better about smoking
with the taste of Kent.**

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES THROUGH LORILLARD RESEARCH

© 1961 P. LORILLARD CO.

PHARMACY DIRECTORY

Your Prescription Store
DIERDORF PHARMACY

Phone BR 5-5212
2315 N. 24th St. Phoenix, Arizona
Milburn F. Dierdorf

In Scottsdale call
Lute's Scottsdale Pharmacy

For
PRESCRIPTIONS
WH 5-8420 — WH 5-8429
Next to the 1st National Bank

SRUTWA PHARMACIES, INC.

WH 5-3791
Scottsdale Medical Center
218 E. Stetson Drive
Scottsdale, Arizona

DISTRICT NO. 1

ARIZONA STATE NURSES ASS'N.

MRS. MARJORIE E. KASUN, R.N.
Registrar

Nurses' Professional Registry

703 Professional Bldg. — Phoenix — AL 4-4151

DOCTORS' CENTRAL DIRECTORY

Helen M. Barrasso, R.N., Director
For Emergencies or in Absence of Your Doctor

CALL EA 7-7471

At Your Service 24 Hours Daily

3029 E. 2nd St.

Tucson, Arizona

"Established 1932"

CLASSIFIED

GENERAL SURGEON

Board Certified General Surgeon; age 36 yrs.; married with family; Catholic religion desires to re-locate with group or other surgeon; currently available for interview. Write Box 19-5-2, Arizona Medicine.

GENERAL PRACTICE

General practitioner after 8 years solo practice interested in group or partnership practice. Prefer Arizona or New Mexico. 5-10,000 population. Write Box 19-5-1, Arizona Medicine.

BUTLER'S REST HOME

- Bed Patients and Chronics
 - Television
 - 24 Hour Nursing Care
 - Excellent Food
 - State Licensed
- 802 N. 7th St. Phoenix, Arizona
Telephone AL 3-2592

HILLCREST MEDICAL CENTER

Established 1921
Third Avenue & Adams St. Tucson, Arizona
Phone MA 3-7591

- General Medical
- Orthopedic
- Post-Operative
- Acute or Chronic
- Convalescent
- Geriatric
- Medical Doctor of Your Choice
- Non-Sectarian

Member American Hospital Association
Admittance by Doctors of Medicine Only
Katharine C. Schmid Charles H. Schmid

For all YOUR DRUG needs-

Phone MAC
ALpin 4-2606
or
ALpin 2-1573
In Arizona Since 1920

FAST FREE DELIVERY

MACALPINE'S

THE *Rexall* STORE • 2303 N. 7th St.

Future Medical Meetings and Postgraduate Education

REGIONAL MEETINGS

SUMMER AND EARLY FALL, 1962

June 25-27, 1962
Colorado University School of Medicine
Fundamental Seminar
Denver, Colorado

October 30-November 3, 1962
Nevada State Medical Association
Annual Meeting
Las Vegas, Nevada

June 27-30, 1962
Idaho State Medical Association
Sun Valley, Idaho

July 10-13, 1962
University of Colorado Medical School
Ophthalmology
Estes Park, Colorado

AMERICAN COLLEGE OF CHEST PHYSICIANS

28th Annual Meeting
Morrison Hotel
Chicago, Illinois

July 13-14, 1962
16th Annual Rocky Mountain Cancer
Conference
Denver, Colorado

July 19-21, 1962
University of Colorado
Dermatology
Denver, Colorado

SECOND ANNUAL SAN DIEGO SYMPOSIUM ON BIOMEDICAL ENGINEERING

Sponsored by Inter-Science, Inc.
Theme: Inter-disciplinary Cooperation
Stardust Motor Hotel
San Diego, California
June 19-21, 1962

July 30-August 3, 1962
University of Colorado
Otology
Estes Park, Colorado

August 6-10, 1962
University of Colorado Medical School
Pediatrics
Estes Park, Colorado

University of Colorado School of Medicine
Postgraduate Conference

August 16-18, 1962
Rocky Mountain Radiological Society
Denver, Colorado

THE MANAGEMENT AND REHABILITATION OF PATIENTS WITH ARTHRITIS

September 16-19, 1962
Colorado Medical Society Annual Session
Colorado Springs, Colorado

July 5-7, 1962
Denver, Colorado

LABORATORIES

THE DIAGNOSTIC LABORATORY

*Complete Medical Laboratory Service, X-Ray Diagnosis
Radiation Therapy, Radioactive Isotopes*



DEPARTMENT OF PATHOLOGY

MAURICE ROSENTHAL, M.D.
GEORGE SCHARF, M.D.
SEYMOUR B. SILVERMAN, M.D.
BLAND GIDDINGS, M.D.
GERALDINE PACE, M.D.

DEPARTMENT OF RADIOLOGY

MARCY L. SUSSMAN, M.D.
E. LAWRENCE GANTER, M.D.

Diplomates of the American Boards of PATHOLOGY and RADIOLOGY

1130 E. McDowell Rd.

• Phoenix, Arizona

Phone AL 8-1601

Information, Price Lists and Mailing Containers upon request.

Medical Center X-Ray and Clinical Laboratory

1313 North 2nd Street
Phoenix, Arizona
Phone ALpine 8-3484

AND

Professional X-Ray and Clinical Laboratory

510 Professional Bldg.
Phoenix, Arizona
Phone ALpine 3-4105

DIAGNOSTIC X-RAY

X-RAY THERAPY

RADIUM THERAPY

CLINICAL PATHOLOGY

TISSUE PATHOLOGY

ELECTROCARDIOGRAPHY

BASAL METABOLISM

R. Lee Foster, M.D., F.A.C.R., F.A.C.P., Director

Martin L. List, M.D., Radiologist

Diplomates of American Board of Radiology

Lorel A. Stapley, M.D., Consultant Pathologist

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy
American College of Chest Physicians
15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
Fellow, American College of Allergists
Fellow, American Academy of Allergy
31 W. Camelback Road CR 7-3337
Phoenix, Arizona

Pediatric Allergy

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists
322 W. McDowell Rd. PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY

Diplomate of American Board of
Dermatology and Syphilology

Phone Alpine 3-5264

105 W. McDowell Road Phoenix, Arizona

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S

Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

MALIGNANT DISEASE

JAMES M. OVENS, M.D.

F.A.C.S. F.I.C.S.

Diplomate American Board of Surgery
Cancer and Tumor Surgery
X-ray and Radium Therapy
333 W. Thomas Road Phone 279-7301
Phoenix 13, Arizona

A. L. LINDBERG, M.D.

Neoplastic Diseases
Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona

Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D., F.A.C.S.* — A. L. Swenson, M.D.,
F.A.C.S.* — Ray Fife, M.D., F.A.C.S.* — Sidney L. Stovall, M.D.,
F.A.C.S.* — Thomas H. Taber, Jr., M.D., F.A.C.S.*

Robert A. Johnson, M.D.

*Diplomates of the American Board of Orthopedic Surgery.
2620 No. 3rd Street — Phoenix, Arizona — CR 7-6211

PROCTOLOGY

WALLACE M. MEYER, M.D.

PROCTOLOGY

Park Central Medical Bldg.
Phone CR 4-5632
550 W. Thomas Road — 216 Patio B
Phoenix, Arizona

JAMES T. JENKINS, M.D.

Fellow American Proctologic Society
Fellow American College of Surgeons
Fellow International College of Surgeons
Practice Limited to Diseases of the Anus, Rectum
and Colon

2021 N. Central Ave.

Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

LEO RUBINOW, M.D.

PSYCHIATRY

AM 6-0630
224 E. Thomas Rd. Phoenix, Arizona

PHYSICIANS' DIRECTORY

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.

SPEECH PATHOLOGIST

Advanced Member
American Speech and Hearing Association
Diagnoses Speech and Swallowing Therapy

240 W. Osborn Rd. Phone AM 5-0071
Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P.

MARTIN L. LIST, M.D., Radiologist

Diplomates of American Board of Radiology
Diagnostic Roentgenology, X-Ray and Radium Therapy

510 Professional Bldg. 1313 N. Second St.
Phone Alpine 3-4105 Phone Alpine 8-3484
Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.

Diplomate of American Board of Radiology

E. LAWRENCE GANTER, M.D.

Diplomate of American Board of Radiology

DIAGNOSTIC RADIOLOGY

THERAPEUTIC RADIOLOGY

RADIOISOTOPES

1130 E. McDowell Rr.

Telephone Alpine 8-1601

Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.

123 South Stone Avenue

Tucson, Arizona

Office Phone MA 2-3371 Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.

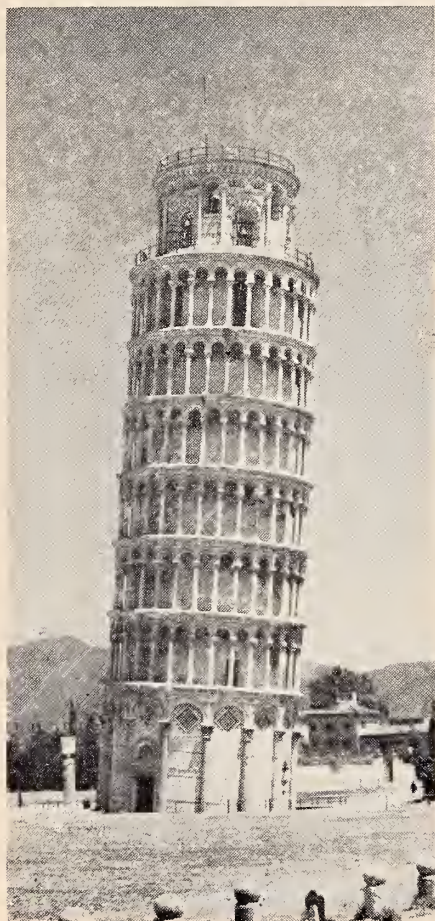
GENERAL SURGERY

Certified by the American Board of Surgery

550 W. Thomas Road

Phone CRestwood 4-2081

Phoenix, Arizona



When treatment for
IMPOTENCE
is indicated

ANDROID^{T.M.} tablets
ANDROGEN-THYROID-COMBINATION

in two convenient dosage forms

ANDROID

Each yellow tablet contains:

Methyl Testosterone 2.5 mg.
Thyroid Ext. (1/6 gr.) 10 mg.
Glutamic Acid 50 mg.
Thiamine HCl 10 mg.

ANDROID-H.P. (High Potency)

Each orange tablet contains:

Methyl Testosterone 5 mg.
Thyroid Ext. (1/2 gr.) 30 mg.
Glutamic Acid 50 mg.
Thiamine HCl 10 mg.

INDICATIONS: Impotence in male.

AVERAGE DOSE: One tablet three times daily.

AVAILABLE: Bottles of 100 and 500 at your pharmacy.

CAUTION: Not to be used when testosterone is contra-indicated.

Federal law prohibits dispensing without prescription.

1. Methyl-Testosterone-Thyroid in Treating Impotence, A. S. Titeff, General Practice, Vol. 25, No. 2, February, 1962, pp 6-8.
2. Thyroid-Androgen Relations, L. Hellman, et al., The Jrl. of Clin. Endocrinology and Metabolism, August 1959.

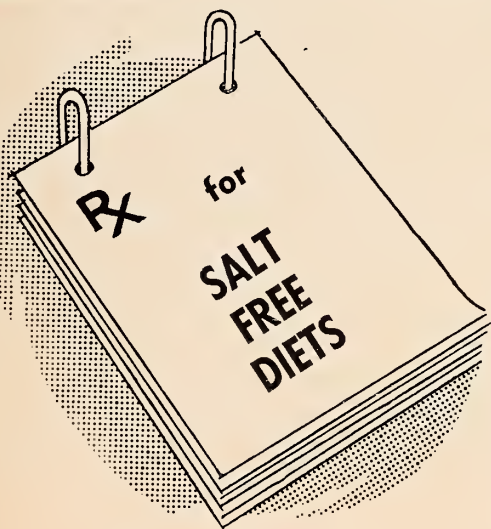
Write for samples and literature...

BROWN THE BROWN PHARMACEUTICAL COMPANY
2500 West Sixth Street, Los Angeles 57, California

INDEX TO ADVERTISERS

A. H. Robins Co., Inc.7A, 20A
 Ames Co., Inc.Inside Back Cover
 Breon Laboratories, Inc.41A
 Bristol Laboratories14A, 15A
 Burroughs Wellcome & Co., Inc.30A
 Butler's Rest Home52A
 Cambridge Instrument Co.18A
 Camelback Hospital40A
 Camelback Professional Building50A
 Classified Advertisements52A
 Crystal Bottled Waters57A
 Doctor's Directory52A
 Eli Lilly & Co.Cover, 24A
 Franklin Hospital50A
 G. D. Searle & Co.8A
 G. M. Case Laboratories38A
 H.B.A. Life Insurance Co.42A
 Hillcrest Sanatorium52A
 Hobby Horse Ranch School50A
 Lantz & Co.46A
 Lederle Laboratories12A, 22A, 23A, 45A, 58A

Loftin's Business Forms Co.38A
 MacAlpine's Drug Store52A
 National Casualty Co.46A
 Nurse's Directory52A
 Organon, Inc.34A, 48A
 Parke-Davis & Co.Inside Front Cover, 1A
 Pharmacy Directory52A
 P. Lorillard Co.51A
 Roche LaboratoriesBack Cover
 Ryan Evans Drug Stores29A
 Sanborn Co.32A
 Sardeau, Inc.47A
 Schering Corp.21A
 Smith Kline & French Laboratories31A
 Squibb17A, 26A
 The Baker Laboratories, Inc.49A
 The Brown Pharmaceutical Co.56A
 Valley National Bank38A
 Wallace Laboratories19A, 39A
 W. B. Saunders Co.5A
 White Angel Inn16A
 Winthrop Laboratories2A, 13A, 25A, 33A



At your store
or call

AM 4-0221

for
FREE
Home Delivery

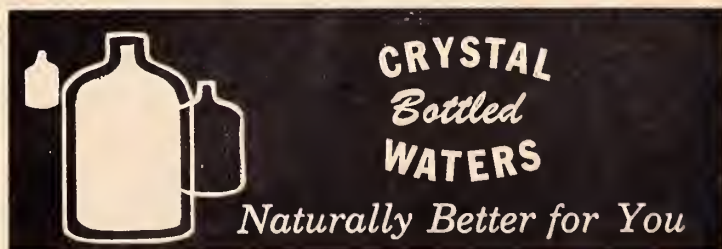
**No Salt Free Diet is
Complete Without...**

Crystal Distal

STEAM DISTILLED WATER

**Scientifically Processed
and Mineral Free**

The purest water available.





in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.



STRESSCAPS®

Stress Formula Vitamins Lederle

Each capsule contains:

Vitamin B ₁ (Thiamine Mononitrate)	10 mg.
Vitamin B ₂ (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B ₆ (Pyridoxine HCl)	2 mg.
Vitamin B ₁₂ Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

THE LIBRARY
UNIVERSITY OF CALIFORNIA
San Francisco Medical Center

THIS BOOK IS DUE ON THE LAST DATE STAMPED BELOW

7 DAY LOAN

3 DAY

SEP 18 1966

RETURNED

SEP 23 1966

REC'D PHOTO

AUG 1 1968

7 DAY

JAN 14 1972

RETURNED

JAN 12 1972

10m-1,'66(G273s4)4315

51

169372

